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ESSAYS, MONOGRAPHS, AND CASES.

Medicine from the Human Body. By C. A. HARTMANN, M.D, of Cleveland, Ohio.

Disgusting as the subject may be, it is undeniably of great importance to every physician to be acquainted with all the human and animal substances used as remedial agents in years gone by; because, as Dr. G. J. Fisher justly observes in the January number of the MONTHLY, many of these absurd things are still in great vogue with the vulgar, as well as with the unscrupulous quack. Particularly in this country, where fragments of many nations find a common home, and consequently, many of the popular errors and ridiculous customs, spread over the older parts of the world, may be found together in a small space, every one of us should try to enrich and perfect his knowledge of the most common domestic remedies, so as to be prepared to meet appropriately the pretensions of a patient's good friends in regard to the value of some loathsome article. Since the introduction of pepsine, urea, and similar products into the national materia medica, it will be interesting, also, to look over the wonderful properties formerly assigned to parts which, perhaps, proved efficacious in many instances on account of the very constituents now exhibited in a separate and purified form. Confining my researches for the present to the human body, I offer the following as a kind of supplement to Dr. Fisher's article "On the Animal Substances employed as Medicines by the Ancients."

1. *Human Blood.* Twenty drops of the patient's own blood, taken internally, for dropsy of the extremities; the ejected blood, mixed with hog's dung and butter, swallowed against hæmoptysis and bleeding of the nose.

The menstrual blood of an immaculate virgin—*sanguis menstruus puellæ immaculatæ*—used externally against podagra, tertian ague, erysipelas, and spots on the face. Dried and taken internally, in amenorrhœa. The patient's own menstrual blood, internally, to stop menorrhagia. The menstrual blood of a married woman against urinary calculi.

Dried human blood was not only considered anti-epileptic, but also applied to ulcers.

2. *Human Fat.*

3. *Human Bones.* The powdered filings from the dried bones of criminals; an internal remedy for worms, colic, and dysentery.

The celebrated *Goddard's drops*, mentioned in the *Pharmacopœia Bateana*, were prepared by distilling human bones.

The powder of burnt human bones was taken internally, as well as used for bathing, in podagra and swelling of the limbs. It also entered a composition known as *Popp's purging powder.*

To drink out of a human skull was considered a remedy for goitre. Prepared human skull—*magisterium cranii humani*—is an ingredient of numerous old compounds against epilepsy, vertigo, etc.

A description of the *sympathy balsam* may be found in *Dunglison's Medical Dictionary.* An oil of reputed anti-epileptic power was obtained by distilling powdered human skulls, previously buried in horse-dung, until putrefied.

Under the name of *albadara*, the sesamoid bones of the great-toe were thought to be possessed of extraordinary virtues.

4. *Human Urine.* "Before all other dirt remedies, we praise and recommend this one as the purest of all, and as the most common remedy against almost all diseases and accidents. Surely we can say that the benign God has furnished every man with his perfect medicine in all cases of need, if we only look to the urine. On that account, however, it is not advisable to drink it indiscriminately in all diseases, although it is of excellent effect against most internal as well as external injuries. To enumerate in a few words the cases where it is commonly employed: urine dries up the itch, dissolves swellings, cleans wounds, even poisonous ones, and prevents mortification. Used as an injection, it proves a laxans; mixed with saltpetre, it removes the scales on the head; applied to the pulse, it serves against fever;

dropped into the ears, it cures their ulcerations; applied to the eyes, it removes their redness; used as a wash, it is of splendid service against trembling of the limbs; employed as a gargle, it serves against swelling of the uvula; mixed with ashes, it relieves podagra and many other pains. There is no doubt that many prominent virtues are concealed in the human urine, which a stupid fellow should never expect from it. Mr. Winckelmann, after giving many stories about this urine, feels encouraged to pronounce it a short road to a long life. The *lapis animalis* of Paracelsus, which is made of human urine, cannot enough be extolled, says the renowned Frenchman, Petrus Johannes Faber. Some say, not without probable reasons, gold could be powdered finely by means of phosphorus, which is prepared from putrefied human urine, and this powder is said to be a general medicine for all diseases. The *spiritus urinæ*, and not less the volatile salt obtained from urine, give excellent relief in phthisis of the lungs, short breath, scorbut, dropsy, and innumerable other affections. Besides other statements, we have some evidence of this in *Dr. Hartmann's Spiritus against Epilepsy*, made from urine and spirit of vitriol, which has been found reliable quite often in this as well as in many other diseases."

Such is a summary of the virtues of urine, presented in "K. F. Paullini's Heilsame Dreck-Apotheke," printed in 1714. But the many virtues attributed to this article are not exhausted. It was also prescribed in ulcerations of the throat, affections of the spleen, syphilis, urinary calculi, quartan ague, as a cosmetic and dentifrice; against pains after delivery, running sores, and obstinate eruptions of the head, dysuria, dislocations, dysentery, cancer of the breast, loss of appetite, toothache, colic, jaundice, cardialgia, etc. In many cases preference was given to the patient's own urine; in others they had many discriminations. Boy's urine is mentioned frequently; particularly as a remedy for epilepsy, and almost all affections of the eyes. A young man's urine internally, in dropsy and polysarcia; that of an old man, externally, for podagra; the husband's urine in hard labors; that of a virgin, externally, applied to pterygium and discolored scars; internally, to relieve retention of urine; the urine of a virgin while menstruating, in fomentations to gangrenous parts.

Distinguished from the volatile salt already mentioned, we find the "tartaric matter from the urine vessel," recommended for uterine and calculus pains.

Mercurius microcosmicus is prepared from the residue left after the distillation of putrescent boy's urine, purified and mixed with clay.

The dried globules again distilled over an open fire, furnish the *spiritus salis microcosmici*. Slowly mixed with the product of the first distillation, and the "phlegma" drawn over in an alembic, under certain precautions, this throws down the *mercurius*, which is "a splendid secret for disorders of the chest and lungs, and a magnificent remedy against phthisis; some six grains of it given in wine, or in any appropriate syrup."—(Paullini.)

Among the many preparations containing urine, there was a mixture against headache, an *extractio lunæ anti-epileptica*, a *panacea solaris*, an *oleum luti*, *dolæi cataplasma ad hydrocephalum*, a *glacies animalis*, a tincture and an essence from human urine, and various eye-waters.

5. *Bezoardicum Humanum. Urinary Calculi.* Reputed alexipharmic.

6. *Human Excrements. Carbo Humanum. Zibethum Occidentale. Occidental Sulphur.* Still used as a local application to inflammatory swellings. A great remedy for diseases of the female parts of generation, antidote to all sorts of poison, antiphlogistic, tonic, astringent; used against all obstinate ulcers, gangrene, burns, frost-bites, felons, loss of hair, lice, cancer, worms, dyspnœa, jaundice, wasting, sore throat, intermittents. The patient's own excrements particularly against "internal apostema," cancer, dysentery, uterine troubles, tertian ague, the plague; externally, in toothache, condylomata, pains in the arms, erysipelas. The dried excrements of a "healthy male fellow," internally, to cure the plague. The meconium of an infant, dried and powdered, against epilepsy and quartan ague; locally applied to nævus. Children's excrements, smeared over the face in fainting; also used topically for swellings of the knee. The same dried and mixed with herbs, to be smoked in dyspnœa. The excrements of a healthy boy were prescribed in a linctus for angina, and as an ingredient of medicines against dysentery; externally, in applications to sore throat and podagra. Better still for inflammatory affections of the throat, should be the excrements of a boy who had been fed for three days on lupines, bread, and wine.

Burnt to ashes, the excrements of men served internally as a remedy for sore throat; and in "preservative powders, against the plague;" externally, against obscuration of the eyes, cancerous and other obstinate ulcerations, and fistula.

Water distilled from human excrements; specially serviceable in diseases of the eyes, externally, but also for ulcers, erysipelas, itch, herpes, burns, fistula, cancer, bites of mad dogs; given by the mouth against dropsy, stones in the kidneys or bladder, and all kinds of poi

soning. Prepared from the dried excrements of a young man, this water was held in great value for epilepsy.

Different "oils" obtained from human dung were employed in cancer, jaundice, ulcers, erysipelas, tinea capitis, pleuritis, podagra.

The long worms born out of human excrements, kept warm, "rolled in sand and then dissolved in alcohol, make an oil with which wasting limbs should be anointed."—(Paullini.)

7. *Mummy.* Besides other uses, ingredient of a syrup and pills against hernia.

8. *Human Ear-Wax.* Believed to possess great power in dissolving pterygium and inflammation of the eyes, but applied also to wounds, rhagades, the bites of vipers and scorpions, corns and burns, and, spread on an eel's skin, to felons. Smoked with tobacco, as an emetic. Internally, to relieve colic and jaundice.

9. *Saliva.* Collected before breakfast, as an application to ulcers, wounds, and sore eyes.

10. *Human Milk.* Principally to eye-waters and ointments; dropped into the ears for pain and inflammation in them; internally, with saffron, against jaundice. Entered also into a cataplasm used against worms.

11. *Mucus from the Nose.* Topically employed in hæmorrhoidal swellings and burns.

12. *Human Hair.* The ashes of it in ointments for promoting the growth of hair.

The patient's own hair, taken in his urine, against jaundice.

The hair from the pubes, burnt, and taken in a man's urine, to render hard labor easy. The ashes and smoke of burning woman's hair, in all uterine troubles.

13. *The After-Birth.* That from a first child, powdered, formed a part of *Wiedeholtz's powder against epilepsy.* Three drops of the blood of human secundines were believed to suppress after-pains.

14. *Sweat,* particularly the patient's own, held to be a good application to inflamed breasts; and, with vegetable fomentations, to goître.

The sweat of a dying person, said to relieve painful hæmorrhoids.

15. *The foam from the mouth of a corpse,* recommended to be drank in beer, against pains after delivery

16. *Touching with a dead man's hand* was practiced not only with a view to remove goître, but also warts and swellings of any kind.

17. *The dirt from under the toes,* as well as that found in the pantaloons, below the knees, smeared under the nose, should stop bleeding.

18. *Human Parasites.* The modern homœopathic practice of treat-

ing the itch by administering potential doses of the acarus with the scabs, cannot even avail itself of the claim of novelty, for six or seven bed-bugs swallowed, have been a reputed cure for the ague; and in jaundice the advice has not yet died out, to eat from three to six full-grown lice. Another method of application is narrated as follows: "A man had a great tumor on the head. On pressure, it emitted a thin and stinking matter. A woman recommended that a number of lice be put on the tumor, and tightly covered. They bit the man terribly, but besides that they sucked out the whole tumor, and he recovered. A girl of four years had quite big goîtres on the neck and near the ears. She was also advised to populate her head with lice. Here and there they perforated the skin, so that the matter could run out, and without any other assistance, the child has been happily cured."—(Paullini.)

We may well feel happy that such prescriptions and such remedies are forever banished from our therapeutical armamentarium; but, humiliating as it is, we can neither deny nor overlook the fact that many of these things are still in daily use as popular or domestic remedies, and on that account they deserve our attention, be it even at the expense of our appetite.

Remarks on the Effects of Frost on the Human Body. By R. NELSON, M.D., of New York.

Read before the Medico-Chirurgical College, of New York.

Last year I read before this Society a paper on Frost and its Effects on the Human Body, which was published in the AMERICAN MEDICAL MONTHLY, for January, 1861. My object in laying that paper before the profession was simply to place the leading facts before the inexperienced, and because I was not aware of a single medical work having a chapter on the subject, with the exception of the romance of Baron Larrey, descriptive of the effects of cold on the retreating army from Moscow. I was aware at the time of reading my paper that it was too brief, and might have been greatly amplified with advantage; but I thought it only necessary to expose the principal facts, and wished to avoid inflicting a long paper on the Society. Since then, there has appeared a notice in the same journal of a prize essay, by M. Krajowski, on the same subject, in which, mixed with some truths, are several assertions at variance with facts, which, I find, have already led some practitioners into erroneous opinions in a criminal case. I shall now proceed to criticise some of M. Kra-

jowski's statements as I find them reported in the journal mentioned, rectify his errors, and refute his gratuitous assertions.

M. K. says: "*By immersing rabbits in liquids cooled down to* + 3° *Fah., he arrived at the following conclusions:*" Here, let me ask—what was the liquid? Certainly, it was not water, for that freezes at + 32°; and besides, immersion in a liquid bears no analogy to immersion in air, the medium in which man suffers, and therefore the experiment is inapplicable. He continues: "*Every considerable lowering below* + 32° *Fahr. leads to inevitable death.*" The fluid could neither be water nor oils, for these are solids and not fluids at + 32°; if the fluid was mercury, its pressure on the peripheral vessels would greatly empty them by compression, and this compression would greatly impede the expansion of the thorax, to say nothing of the rapid conducting power of so dense a fluid as mercury; if it was alcohol, we must take into account its physiological effects on the system. In any case, these *cabinet* experiments bear no analogy to atmospheric cold, in the case of which these inferences are utterly false. Domestic animals are often exposed to cold 30 and 40 degrees below the freezing point with impunity, for many hours, even days. But with man it is very different; his system cannot generate heat sufficient, nor sufficiently fast, to resist a long-continued cold. Again: "*Individuality exerts an important influence, for all rabbits do not lose* [generate] *the same amount of heat in an equal period of time.*" True, but what of that? a living body is not a simply physical one, constant in its properties; it differs at one time from another greatly in its physiological state. A lawyer, Mr. B., suffering under religious insanity, but otherwise in good health, left his warm bed and house, unobserved, on a cold winter night, the thermometer being at about zero, and barefoot, with only a shirt on his body, traveled a distance of nearly eight miles, when he was met quietly walking along the road. When stopped and taken into a house, to the astonishment of the people, no part of him was found frozen, not even his feet, that had so long trodden the hard, icy road. How much the mental state he was in served him, I know not; but there are those, particularly young doctors, who will readily explain the matter with an ease and lucidity proportionate to their assurance. However, this case scarcely comes under M. Krajowski's "Individuality;" I merely give it to aid him, and as a curious occurrence.

Continuing with his (rabbit) examples, he says: "*The pulse becomes always weaker, as also the heart's impulse.*" Of course, since scarcely any blood reaches the surface and the extremities; the circulation (that is, return of blood,) is principally confined to the viscera, and

even there its temperature gradually lowers, partly from the cold blood that returns from the surface, and the cooling of the blood through the lungs, until the whole mass has been reduced to a very low temperature. This cooling of the blood, even without arresting secretion, is made manifest by the cold gushes of saliva from the parotid duct, when the face has grown very cold. Many observant persons have felt as if the blood in the cava was cold after long and quiet exposure, as in riding long in a cold night. Who has not experienced how long it has taken to warm the hands and wrists after long exposure, by immersing them in warm water? After long exposure to cold, as in driving for several hours, the hands may become bloodless, the fingers being still obedient to the tendons, although frosted; on the return of the blood—warm blood—the pain becomes agonizing; this phenomenon *I* cannot explain; but, as already stated, there are those who can explain everything.

"*The freezing of parts, so frequent in man, is rare in animals.*" True; and if true, how silly it is to make foolish and unnatural experiments on the lower animals, and therefrom deduce conclusions explicative of what occurs in man! "*He never found a frozen part, except the ears of rabbits and the crests of cocks.*" I venture to affirm that the ears of *live* rabbits are never frozen. Hares burrow under roots of trees, under snow, in the daytime, and go out to browse at night only; when snared, no ear is found frozen, but shortly after death the whole body becomes a frozen, solid mass, as I have often observed; the same is the case with partridges, quickly after their strangulation. As to the combs of cocks, they freeze readily, and after thawing slough off, as also do their toes, exactly like the toes and fingers of man.

"*Animals running about freely can stand great cold without dying, or getting their extremities frozen.*" This would imply that these exposed animals preserve themselves by considerable exercise; but this is a great error. I derived my experience of the influence of cold on animals in Lower Canada, north of 45°, where all cattle are housed in warm stables during the winter, and I was thus afforded no opportunity to decide this question, which always interested me. But I passed three winters in Vermont, a little south of 45°, where horses only are housed, and badly so; while cattle are left out, night and day, the whole winter. I took this opportunity to notice the effect of what I considered a cruel treatment. There I never observed that cattle *moved about freely*, that is, quickly, as if to keep themselves warm; quite the contrary, the colder the night, the more slowly did

they mope about; but they ate enormously, when they could get at the hay-stack. Still secretion was not arrested, as in the case of the parotid saliva before mentioned. I have more than once seen the cows milked in the morning after a very cold night; the milk being warm, it is true, but much less so than in summer. In cold weather cattle move much more slowly than in mild weather, for this is the constant effect of cold on *all* animals; they do not and cannot exert themselves as in warm weather; even horses travel slower in very cold days, take shorter steps than usual, but as frequent, the extension of the limbs being so much arrested, that in a given time they travel at least one-third less the distance than they would in moderate weather.

The author relates *instances of horses and cows losing their way in woods for months, in a temperature averaging from* 8° *to* 26° *Fah., without other food than what they found under the snow. These animals, when found, had become very much emaciated, and had lost nearly all hair, but no part of the body was frozen.* These cows and horses do become lean because of the scarcity of food, but never lose their hair; quite the contrary, for the hair is always scant, short, and sleek in summer; in winter, abundant and long. Hence it is that all summer peltry is greatly inferior in quality and price to that which is procured in winter; the summer buffalo-robes bring only half the price that those of the late autumn and winter do; and the farther north, and the colder the season, the richer in fur and higher in price are they; the musk-ox and bear-skins of the far north are remarkably superior to those of less cold latitudes; the same is true of all the feline species, martins, minks, raccoons, &c. And among these, by mid-winter, the accumulation of fat is so great, that in raccoons, skunks, &c., muscular fibre has become nearly obliterated by white fat, which disappears in summer, leaving the muscles restored to their natural appearance. This is a healthy transition, although the catchers at novelties call it *fatty degeneration.*

"*The observation of Brambilla, that, under ordinary circumstances, one hour's exposure to great cold was sufficient to cause death, is confirmed by the author's observations in Siberia. In Siberia it is generally taken for granted that persons lightly clad can march with impunity for the first four miles, the thermometer being at* 30° *to* 35° *Fah. Persons have stayed with impunity in snow and ice for two, three, even for five or six whole days.*" Partly true; but it must be remembered that walking in snow is exceedingly fatiguing, requiring great exertion, which keeps up the circulation. To submerge in or under the snow, is an excellent

preservative, since snow is a very bad conductor, and suffers the heat of the body, communicated to the clothes, to be preserved, while in the air the abstraction would be rapid and great. As to the short time requisite to freeze a man, (who is vastly inferior as a generator of heat to an inferior animal,) the statement is correct. I have known several deaths so produced in less time than an hour. A young man, (20 years,) in vigorous health, and not badly clad, driving a stage from Laprairie to Montreal, a distance less than nine miles, was frozen to death, stiff and solid. A man 50 years of age sat down in his sleigh to go home; when he arrived, a distance of four miles, he was found frozen stiff; the horse, under no management, had trotted for a time, and then walked slowly until he reached the house; many other individuals I could cite by name. It occasionally happened that a sentinel, on the cape at Quebec, was found by the relief, frozen, dead and stiff; but, I believe, not since 1811, when Col. Brock made appropriate regulations, by shortening the duty from two hours to one, or less, in cold nights, with other protection; such as a sentry-box cloak, and straw for the feet in the sentry-box. As to marching four miles, that can easily be done, and much more, for exercise maintains the heat of the body; but the march soon becomes a slow one, owing to the short steps that the cold induces, until at last the marcher has become fatigued, sits down, and then is cooled so low as to freeze. As to the six whole days, that is a simple flourish of the pen, and untrue.

"*A Russian was caught by a snow-storm, and buried with horse and sleigh in it. He was found living and asleep, after twelve days. The horse was dead and frozen. The man easily awoke on being called by name; he had eaten nothing, only quenched his thirst by eating snow from time to time. Some toes and a finger were frozen.*" (*!!!*) I have already said that snow is a good non-conductor, but that is not all that is requisite as a preservative of life for *twelve* days; as to quenching thirst by *eating* snow, the statement is simply absurd. A man needs food in much less time than twelve days, to say nothing of water. Krajowski says, he *eat* snow. This M. K. has simply invented to complete his case. To drink snow-*water* is a very different thing from *eating* snow. Any one of experience knows that eating only a small quantity of snow parches the mouth, renders the saliva glutinous, stringy and adhesive, makes the mucous membrane painful, and greatly increases the thirst; so that, without water to drink, and only snow to eat, a man will die of thirst. Even sheep, cows, and horses will starve for want of water, and will only lick the snow.

M. Krajowski says: "*The anatomical appearance in individuals dy-*

ing from the effects of cold are: 1*st. Rigor mortis more marked than after any other manner of death. The extremities and the protruding parts, as ears, nose, and toes, are very brittle, and break especially easily on transportation.*" As to the *rigor mortis*, he ought to have named it *rigor geli*. Of course a frozen body is stiffer than a simply dead one; but a frozen body, after being thawed, has less rigor mortis than one never frozen, as we invariably find them in the dissecting-room. As to the nose, ears, toes, &c., being brittle and easily broken during transportation, it is so utterly false, that one is astonished that any man would venture to make such an assertion. Students, after nabbing a frozen body out of the *Caveau*, being pursued, have had to gallop over the hard "cahot" road of Lower Canada, for a long distance, and in no instance out of hundreds have a toe or a finger been snapped off, as M. K. asserts. Who has not seen, year after year, slaughtered frozen sheep and pigs, brought a great distance to market, and no limb, not even the protrusive ear of a pig, snapped off? Who has not seen sleigh-loads of fish, tommy-cods by the thousands, brought over a hundred miles, and yet none broken? although fish, surely, are more brittle than man or mammalia.

"*The brain and its membranes are strongly congested, the sinuses filled with blood; extravasation is rarely found; serous effusions are met more frequently.*" Congestion is a *diseased* state of a part, but death by freezing is not a diseased action. The sinuses must be always filled with blood, in whatever way the death may have occurred; for such is a physical necessity of fluid in a closed and incompressible box like the skull. The natural amount of water in the ventricles is of course frozen, but such water is not effused, since no *diseased* action has existed to produce it.

The posterior part of the lungs is hyperæmic. True. But this is a simple and necessary fact; for the surface blood gradually recedes as the body cools, before death; and before it freezes, it necessarily accumulates in the warmer visceral cavities, and at last freezes there.

"*Bits of ice can often be felt in the subcutaneous veins, and are also found in the cavities of the heart, in the ventricles of the brain, and in the urinary bladder.*" As to the external veins, since the blood left them before freezing, they can contain, if any, very little material to become ice. The blood in the heart, and that in the visceral veins, freezes of course; and the liquor pericardii becomes a thin case of ice around the heart; a fact that M. K. does not mention, which shows that he has examined, if at all, very superficially, the frozen subject. The pleural and peritoneal liquor is also frozen.

"*The cadaver is pale; after thawing, the liquefied blood passes, by exosmose, through the walls of the vessels, causing red stripes to be seen.*" As a *certain* sign of death by freezing, M. K. regards the "*separation of the coronal and sagittal sutures. Its presence can easily be made out by grasping the skull with both hands, and effecting an approximation and separation of the cranial bones. In* FIVE *cases this was constantly met with. This phenomenon is analogous to the bursting of bottles, filled with water, exposed to great cold.*" This certain sign of death from freezing is utterly false, although attempted to be bolstered up by reference to five cases. If this ever occurred in Russia, the cold of that country, and the skulls of its people, must differ greatly from most of other parts of the world. This statement is on a par with that of Baron Larrey, who deliberately stated that the eyes were the part that froze first, of the French fugitives from Moscow, in the great Russian retreat; and both assertions are equally false. M. Krajowski's Essay is evidently *pennafactured* at the desk, in the cabinet, and cannot be the result of actual observation out of doors. These writers, deficient in facts, strive to supply them, at the time of writing, by calling to their aid their reminiscence of what they had learned of Physics. Larrey remembers that the aqueous humor is without heat of its own generation, and therefore, like water, is more readily frozen than parts through which circulate heating blood. Krajowski, bolder than Larrey, lets his cat out of the bag by comparing the skull to a glass bottle. Now, the skull is not brittle, inexpansible, like glass or a cast-iron bomb-shell; nor is brain water. Green bones yield in some degree to slow distention. As far as I know, water is the only body that expands on becoming solid. Freezing, it will break a brittle, unyielding glass bottle; but oil—as olive oil, and anis oil—on freezing, will not, because they are not water, and do not expand on becoming solid.

Brain is not water, and is more likely to contract than expand in freezing; and its *integral* water, unlike a mass of unmixed water, is quite likely to find space for its expansion among the cerebral atoms with which it is intimately mixed. Besides that, the freezing of the contents of the skull goes on from without inwardly, and will find room by gradually forcing the liquor arachnoidei towards the base and spinal canal, parts to be last frozen, and thence bulging outwardly the capsular ligaments of each vertebra, thus gaining all the space requisite. The sutures and the bones, each and all, will yield a little outwardly—the sutures without separating, and the bones without cracking.

The foregoing remarks and objections to M. Krajowski are sufficient to refute this faulty part of his essay; but to put the subject beyond doubt, I shall give a few facts, out of many, from my personal experience. For this purpose, I must enter into a short digression, descriptive of the manner in which subjects are procured in Lower Canada during the winter.

For many winters, when I lived in Lower Canada, I carried on dissections largely for a class of students. The subjects were all procured from the burial-grounds, where, in the autumn, a large cellar is dug, called a Caveau, and lightly covered over by a shed of boards to keep off the snow. This is done to avoid the great labor and expense of digging separate graves through earth frozen to a depth of several feet. In this receptacle are deposited daily the dead of the poor and such middling class people as cannot afford the expense of separate graves. From November to the end of April, the coffins are piled one on another, and in the spring the whole are covered over with the surrounding earth. Out of these caveaux I have received seldom less than twenty bodies in one winter, and the number has more than once exceeded thirty. All are frozen, often before reaching the caveau; if not, they soon after freeze, and so continue the whole winter. Of these bodies, we get several at one time, bring them home, and bury them in the snow until wanted. The subject is thence brought into the dissecting-room and suffered to thaw gradually, and then dissected. When this is over, the bones (and heads) are set to macerate for cleaning and to make preparations.

Now, in all these numerous anatomical pursuits in each winter, and for many winters, with bodies thoroughly frozen through and through, hard and solid, some of them having so remained frozen for three and four months, I never once met with a single instance of rupture of the sutures, or crack in any bone of the skull; on the contrary, we habitually made preparations of the heads, and when we wished to prepare a disarticulated skull, we were obliged to have recourse to the old method of separation at the sutures by filling it with dry peas or beans, and causing these to expand by soaking, force the bones apart.

Most prize essays are "cooked-up productions," examined, voted upon, and approved by persons who know little of the subject; and hence it is that very few outlive the day of their publication. As to the "experiments," gravely brought forward to bolster them up, the authors appear to be regardless of the fact that the analogy between inferior animals and man is very remote; the organization of man, and its functioning, being of the highest order, while that of

lower animals is less and less complex as they descend in the scale; so that, what would produce disorder in a complex machine, would affect only in a slight degree a more simple one. M. Krajowski says what is true—man, well clothed, soon perishes in dry cold, and that animals scarcely ever do; and, to explain this fact, he experiments upon rabbits, without additional clothing; and, as if to render the case more preposterous, he immerses them, not in cold, dry air, but in ice-water, or some other liquid. It is of such irrational experiments that a large portion of physiological treatises are composed. It is by experiments upon the nervous and vascular systems of frogs that the wildest theories have been suggested to explain what takes place in the highly complex structure of man. For years past these stupid experiments have been performed to explain innervation and inflammation in the human being, regardless of the fact that the nervous system of the frog is scarcely yet centralized, existing to a great degree in a diffused state; while the imperfect circulation of a cold blood, not essential to life, is seized upon as analogous to that of the vital fluid in man.

Translations from the German. By C. A. HARTMANN, M.D., of Cleveland, Ohio.

I.—*On the Diagnosis of Pigmentary Deposits, particularly in the Renal Vessels.* By Prof. OPPOLZER.

Intermittent fever must be considered pernicious not only in rapidly fatal cases, accompanied by coma, but whenever life is endangered, even after a long time, by subsequent morbid changes. Sometimes death occurs after a few paroxysms, and nothing is found to explain it beyond serous infiltration of the cerebral membranes, acute swelling of the spleen, and hyperæmia of the other organs. In other cases, there are exudative processes, (erysipelas, pleuritis, pneumonia, dysentery, hæmatemesis, hæmaturia,) but only during the paroxysm. The comatose forms exhibit frequently, besides the serous infiltration already mentioned, formation of pigment in the blood, and deposition of the same in the cerebral vessels. This formation takes place either rapidly, resulting, after a few violent paroxysms, in delirium, convulsions, sometimes mania, stertor, coma and death; or the intermittent continues for some time before the same symptoms announce the formation of pigment. Occasionally, this process assumes even a chronic character, and the pigment is then deposited in different organs, whose functions it may disturb, or remain harmless until

the obstruction in the vessels is turned to account by some other influence.

Usually the pigment is undoubtedly formed in the spleen and transferred to the hepatic ramifications of the portal vein, where it is in part detained, while another portion of it passes on to the capillaries of the liver and lungs, and may travel through the whole circulation. It seems, however, as if sometimes the pigment appeared first in the blood itself.

Being once deposited, it causes varying symptoms, even in the same organ, and this renders, with few exceptions, the diagnosis rather difficult. Accumulation of pigment in the integuments is evident from a more or less ash-colored hue of the same. The cerebral symptoms vary with the quantity and duration of the deposit; if extensive and rapid, it is frequently accompanied by typhus or jaundice; where the process is more chronic, it is followed by gradual decrease of the mental faculties, or is borne for some time without injury, until, from some other cause, hyperæmia leads to lateral pressure and extravasation around the obstructed vessels—*apoplexia disseminata.* Here, also, typhoid symptoms are commonly present. Pigmentary deposit in the spinal marrow is of rare occurrence. Hemiplegia is the consequence, and contractions or permanent paralysis from atrophy of the spinal marrow remain, unless the extravasation is absorbed in time, and thus the obstruction removed.

Enlargement of the liver arises, in obstinate intermittents, either from gelatinous infiltration, or from accumulation of pigment. In the latter case, the results are hyperæmia, exudation, and possibly atrophy of the liver, which then exhibits a uniform granular texture and a chocolate color.

Slate-colored spots are occasionally observed, after pernicious intermittent fever, on the mucous membranes of the intestines. The symptoms dependent upon this process are not yet ascertained. In all the cases enumerated, the diagnosis remains uncertain, as the symptoms described belong also to other affections of the suffering organs. More evident is the pigmentary embolia of the renal vessels. It can be diagnosticated many years after all other sequelæ of fever and ague have disappeared. For a long time the secretion of urine may not be disturbed, nor the organism be manifestly affected. Of two cases, the one exhibited, seven years subsequently to an obstinate intermittent, suddenly, cephalalgia, chilliness, weariness, spasmodic pains through the abdomen and lower extremities, followed by typhoid pneumonia and bronchial croup. Urine, resembling the washings of

flesh, albuminous; in the sediment, free granular pigment and pigmentary deposits connected with cylindrical exudations from the Bellinian tubes. Death by suffocation. Liver and spleen enlarged; both kidneys tumefied, with numerous pigmentary accumulations in the Malpighian bodies. In the other instance, intermittent fever had been more or less constant for thirteen years. Hard tumors, without pain, in both hypochondriac regions; skin of a dirty, brownish color; some serous effusion in the abdomen. Urine dark-colored, not albuminous. In three weeks, suddenly, difficult deglutition, angina, dyspnœa, cyanosis; blood, albumen, and pigment in the urine. An antiphlogistic treatment, followed by quinine and iron, finally led to recovery. Here the deposit in the kidneys did not manifest itself until hyperæmia supervened, in consequence of the inflammatory process in the larynx.—(*Wiener Medizinische Wochenschrift.*)

II. *Observations opposed to the Doctrine of Superfœtation.*

If in all cases of apparent superfœtation, remarks Professor C. R. Braun, of Vienna, the coverings of the ovum had been minutely examined, the number of such cases would be greatly reduced. The placenta of a mature female child, born December 19, 1859, at the Lying-in Hospital of Vienna, shows, besides the normal insertion of the umbilical cord, and more than five inches from it, a large yellow spot, around which another set of umbilical vessels is spread out. This yellow spot is connected with the remains of an umbilical vesicle: a simple chorion and a double amnion; the smaller part of the latter containing a mummified fœtus of several months. The arteries of its atrophied cord clearly communicated with those of the other cord. There had evidently been twins, and one of them perished in consequence of some disease of, or injury to, its umbilical cord.

According to Prof. A. Valenta, of Laibach, a woman at the age of thirty was delivered of her second child, November 29, 1859. A loop of the cord around the child's neck the only irregularity. Afterbirth expelled spontaneously. Placenta oval, eight inches in diameter; its uterine surface normal; marginal insertion of the cord. Not far from the insertion there was a ruptured cyst, containing a brownish-yellow body, an inch and three lines in length, and many pisiform nuclei of a similar color. This cyst proved to be a second amnion, connected with that of the mature child; the body in it was a malformed, flattened embryo of two months and a half, with a distinct cord; the arteries of the latter communicating with those of the former. Chorion simple; placenta divided by a notch. This, also, was a case of

twins: one of them perished from some unknown cause; the other arrived at the full term of uterine life.—(*Zeitschr. der Gesellch. der Ærzte zu Wien.*)

III. *The Abdominal Pouch—Cloaca—in the Female Fœtus.* By Prof. J. F. H. Albers, of Bonn.

At one period of fœtal development, the termination of the intestinal canal, the two ureters and the divided uterus open into a common space in the hypogastric region. This space forms a deep depression in the abdominal walls, and is called the pouch or cloaca. According to the time when development is interrupted, it appears under three forms.

1. Before the abdominal walls are formed, the peritoneal sac is the only covering of the intestines. It shows, in the hypogastic region, a shallow depression, with membranous but hard margins. The external surface of this pouch is rough; covered with various masses of areolar tissue; here and there penetrated by numerous vessels. The floor consists of thick, compact tissue, resembling bacon, or a tendinous membrane, and is lined with a villous texture, somewhat like the intestinal mucous membrane. In the upper and right part of the pouch, a large opening leads to an adjoining portion of the intestines, commonly the cœcum; the smaller portion of the intestine runs alongside of this, and is connected with the wall of the pouch, without perforating it. A little lower, another aperture communicates with the ascending colon. The ureters, not fully developed, do not reach the pouch, nor do the two wombs communicate with it. The pubic bones do not meet, and frequently the sternum remains divided.

2. Abdominal walls firm and dense, with muscular layers; instead of the skin, a reddish, succulent, serous membrane. Pouch large, round; very marked, with more holes. From a large one in the upper and right part, or more in the middle, an everted part of the small intestine, with the provisory anus, protrudes, often to a length of one or two inches. Another opening by the side of the former leads to a small bag not connected with the bowels; a third one, more to the left and inferiorly, belongs to what can be considered as the ascending colon. The upper division of the pouch, which contains all these openings, appears therefrom to be a part of the future cœcum. In the lateral margin, or externally to it, the ureters are lost in a fold of the integument, either opening there, or still remaining obliterated. Each womb has now an incomplete vagina; each of them opening, if at all, on one side of the pouch. There are indications of a double clitoris

between them. The vessels of the perineal and hypogastric regions are yet deficient; portions of the small intestines, the descending colon, rectum and anus, entirely wanting.

3. Pouch surrounded by normal skin; the double clitoris distinct in all its parts; anus indicated by a depression. The pouch presents seven apertures: a small one, most externally on either side, for the ureters; next, two larger ones, for the vaginal canals; the other three more superiorly, and to the right. Of these, one leads into the still incomplete and blind ileum, the second to a well-marked vermiform process, and the third to the partly developed and blind ascending colon. The floor of the pouch is now divided into several departments, running towards the different orifices, and corresponding in structure to the parts these lead into: one exhibiting transverse folds like the vagina, another intestinal mucous membrane, etc. By folding the pouch laterally, the intestinal canal, vagina, and urinary bladder appear in their proper relative position. The hypogastric artery is still wanting, or merely indicated by some small ramifications.

This explains many abnormal formations of the female parts of generation, such as the congenital atresia of the vagina and anus, malformed hymen, etc.—(*Monatsschr. f. Geburtsk. und Frauenkrankh.*)

Transactions of the Medical Society of the County of Kings.

APRIL, 1861.

Dr. CHAPMAN made some remarks respecting diphtheria. He thinks it a blood disease, the poison of which may be eliminated in health—the throat trouble being but a symptom of general constitutional disturbance.

He commenced the treatment of the disease with mercurials, and locally, with caustic; but his experience had convinced him that these remedies are injurious, and he now relied entirely upon brandy and quinine, and upon simple gargles.

Brandy, he thinks, acts not only to strengthen the system, so that the poison may be eliminated, but the alcohol increases the plasticity of the blood, while the tendency of the disease is to disorganize the blood and allow the albumen to form the membrane.

Dr. CHAPMAN thinks the condition of the throat is not that of inflammation, but is merely congestion, a stasis in the capillaries.

Dr. HALLETT relies upon the internal use of stimulants and quinine,

and iron. Locally, he uses caustic, gr. lx. to ʒj., and dates the improvement of cases from its application.

Dr. CONKLING alluded to a case of diphtheria in which there was a most disgusting fœtor to the breath. The bromide of iodine was used (four drops to the ounce of syrup of gum) locally, with decided success—the free iodine which is constantly being liberated acting as a disinfectant.

Dr. BALL finds no difficulty in discriminating at once between diphtheria and other diseases. He regards it as a dyscrasia of the blood, in which it has too much plasticity. Hence he relies upon anti-plastics, the best of which he thinks is mercury. He first evacuates the bowels, giving for a day or two mercury and nitrate of potash. When the secretions of the bowels and kidneys are normal, he combines them with Dover's powder, as a sedative, subsequently giving quinine and wine, or brandy. Does not use caustic locally.

Dr. BALL stated that he had treated in this manner from sixty to seventy cases of diphtheria, without losing a case.

Dr. HART had seen no extreme cases. He adopts the gentle mercurial treatment at the beginning, and then gives stimulants freely. He does not use the probang, but has found immense benefit from a gargle made of ten or fifteen grains of nitrate of silver to a tumbler of water.

Dr. CONKLING presented a portion of the ilium in which Peyer's glands were extensively ulcerated, in a case of typhoid fever, and read the following history:

A Case of Typhoid Fever terminating fatally on the Twenty-first Day, by Hæmorrhage from the Bowels.

Mr. H., aged 21, of nervous temperament and rather feeble organization, became slightly unwell about the first of January last. Confinement to the house and the usual domestic remedies were resorted to, and medical advice was not sought until Tuesday, January 8th.

He had then some fever, which assumed at first the remittent form. A diaphoretic mixture was ordered, and between the slightly marked exacerbations one grain of quinine was given every four hours.

The disease on the 12th had assumed the form of uncomplicated typhoid fever—severe headache, eye heavy, tongue thickly coated and fissured, and subsequently peeling off in flakes, rose-colored eruption on the abdomen and chest.

The tongue cleaned from the middle on the 14th day, and on the 15th he had a profuse discharge of blood from his bowels, which

ceased to flow after the administration of gallic acid, subsequently passing healthy fæcal matter.

Quinine, brandy, and beef-tea were the principal remedies employed. The disease seemed to be progressing favorably, and at 11 o'clock P. M. of the 20th day, he was very comfortable; pulse 80; tongue moist, and nearly clean; and perfectly rational.

He slept the most of the night quietly. At 8 o'clock on the morning of the 21st day, had a recurrence of the hæmorrhage. Acetate of lead and opium were given, and an injection into the rectum of a solution of Squibb's persulphate of iron administered, but he continued to lose large quantities of blood, and at 2 P. M. died, with all the symptoms of a man who had been bled to death.

Post-mortem twenty-two hours after death. Abdomen only examined. Stomach, liver, and kidneys healthy. The spleen was nearly three times its usual size, and its parenchyma reduced to a soft pulpy mass. The ileum, cœcum, and portions of ascending colon intensely congested—Peyer's glands ulcerated, and in many places entirely through to the peritoneum.

The vessels were enlarged and ulcerated into, thus indicating the source of the hæmorrhage.

The feature of marked interest in this case is, the fatal result occurring so suddenly, when every symptom seemed favorable to recovery. There had been no tenderness over any portion of the abdomen—an entire absence of pain, tympanitis, and diarrhœa; the administration of no cathartic or laxative medicines; healthy fæcal matter had been repeatedly voided between the first attack of hæmorrhage and its recurrence; the tongue assuming a natural appearance, and strength sufficient to turn and raise himself in bed.

Hæmorrhage from the bowels occurred in one-tenth of the cases treated in the Massachusetts General Hospital. In 7 out of 21 fatal cases observed by Dr. Jenner, one man passed blood on the 8th, 9th, and 10th days; then the passages were free from blood until the 28th to the 32d, when he died. In one patient, blood was passed every day from the 14th to 21st, patient dying on the 25th. Dr. Flint met with hæmorrhage in 3 cases out of 73. Two recovered and one died. In 53 cases reported by Dr. Mattingly, of Bardstown, Kentucky, hæmorrhage occurred in 9, but in none of the above cases is it noticed as the immediate cause of death.

Dr. Tweedie, in his lectures on fever, delivered in London, in 1858 and '59, and published in the *Lancet*, says: "I had a case some time ago in which hæmorrhage appeared to be the destroying cause, and

on opening the body, Peyer's patches were found to be sound, but the mucous membrane of the lower portion of the ileum, cœcum, and commencement of the colon, exhibited a red, swollen appearance." He further adds, "that the quantity may vary from an amount which only indicates the tendency to hæmorrhage, to 12 or 16 ounces discharged at a single time. The total amount, however, can only be judged by its influence on the patient's strength, which is seriously and often fatally impaired by the loss." "The source of the blood may be traced," he says, "to the ileum and cœcum, and to issue both from the ulcerated patches and intervening mucous membrane."

In one case, Dr. Jenner found after death that water thrown into the superior mesenteric artery poured forth freely from the edges of an ulcer, from which, doubtless, the hæmorrhage, which was the immediate cause of death, proceeded.

The history of the case reported this evening, with the unmistakable revelations made at the post-mortem, shows the uncertainty that must always attach to cases convalescing from a disease in which a slow but certain progress may be making by these ulcerations towards a fatal result.

Some months since I was called in the night to visit a man who was said to be dying. I found him greatly exhausted by the loss of blood from his bowels. He died in a few hours. He had had typhoid fever, was slowly convalescing, had taken some exercise in the open air the day before, and retired with an increased amount of strength. Had there been a post-mortem, there would have doubtless been found an ileum very similar to that of the case now presented.

Dr. Jenner, of London, in an analysis of many cases of ulceration, has the following among his conclusions:

That ulcers dependent for their origin upon the presence in the system of fever-poison may, after the fever has run its course, continue to spread, retard recovery, and even cause death by perforation; and that, while some of the ulcers are undergoing the healing process, others may be spreading.

Rokitansky remarks, these ulcers are a frequent cause of the lengthened duration of illness.

As no treatment during the progress of the fever can prevent or control these ulcerations of Peyer's glands, it is very doubtful if any medication can at all influence the hæmorrhage after it has commenced.

Headland, in his "Essay on the Action of Medicines," remarks that astringents act directly, and especially on muscular fibre. This

contraction is slower and more durable in involuntary than in voluntary muscular fibre. In small doses, astringents constrict and stimulate those tubes that contain in their coats the unstriped fibre; by the same action on the extreme vessels, they prevent hæmorrhage. He says that sulphuric acid is of no use in cases of hæmorrhage, except from the mucous surfaces; hence Huss, of Stockholm, relies entirely upon it in cases of hæmorrhage in typhoid fever.

Dr. Bartlett relies upon the free use of acetate of lead and opium in hæmorrhage in typhoid fever.

Chomel recommends in hæmorrhage attending typhoid fever, iced water and iced lemonade for drink, and the administration of the extract of rhatany.

Dr. HART was recently called to visit a very nervous woman, whose complaint was, that she "felt bloated."

Upon examination, he found the arms, breast, body, and lower limbs to the knees, very much enlarged, and felt like fat. There was no dropsical effusion, no pitting upon pressure, no albumen in the urine. The action of the kidneys was nearly suspended, making but a few drops at a time, and during the twenty-four hours about half an ounce.

He supposed it a case of Bright's disease. He gave blue mass, in six-grain doses, oxide of zinc, and nitrate of potash, and subsequently, tincture of iron. The quantity of urine increased, and is now 24 to 30 ounces. The bloating has disappeared from the arms and breast, and is softening over the body. If the blue mass is stopped, the urine is diminished at once.

Dr. HART's opinion now is, that it is merely an abnormal deposit of adipose tissue.

Dr. HAWLEY gave a verbal report of a case, substantially as follows: March 3d, a boy 9 years of age, intelligent, and rather precocious, was brought to him with the complaint, that for the last three weeks he had been debilitated and disposed to lie down; complained of being tired; would play, but appeared feeble and wearied at the least exertion. From close questioning, it was found that he had periodical quotidian attacks, as follows: chills, pain in back, head, &c., followed with fever. Prescribed quinia—10 grs. per day, for two days, which was taken without relief; then gave a cathartic of calomel, and repeated the quinia in the same doses, after which, the only improvement was a change from a quotidian to a tertian type of the periodical attacks; then gave "Fowler's Sol.," four drops per day, which was continued five days before the patient returned. Was then

informed that the patient had been continually growing worse since last interview; constitutional effect of the arsenic slightly developed; the ague symptoms had now given place to irregular convulsive attacks, with pain in region of stomach, &c.

The patient having stayed away and taken the arsenical solution longer than intended, the Doctor stated that he feared that might be the cause of the present symptoms, for which he gave an opiate, with apparent good effect, controlling the symptoms entirely. But very soon he received word that the patient had been seized with a paralytic attack; he could not walk, yet he could move a little, but was feeble and prostrated. In a short time his strength returned fully, and he appeared perfectly well. Then, again, he would be seized with the paralytic symptoms, with great giddiness and singular perversion of vision, as seeing objects in the wrong place, &c., and recover as before, *suddenly*. He continued in this changeable condition for several days, during which time, Dr. Hawley says: I gave strychnia and iron, and gave a history of the case to Dr. Austin Flint, who concurred in the propriety of the treatment; but it seeming to be doing no good, I had made arrangements for Dr. Flint to see the case with me, when the patient seemed so much better that it was considered unnecessary. He now remained apparently perfectly well for three days, and I was congratulating myself upon the result, when the paralytic attacks returned. *Now*, from the fact of the child's having had a ravenous appetite after these attacks in all their forms, I am giving santonin.

Dr. North gave a brief account of a case of apparent epileptic convulsions in a boy 9 years of age, which had lasted some three years, the child becoming partially idiotic, which is undoubtedly the result of masturbation, as it is discovered that the boy uses every means possible to irritate and excite his sexual organs.

Dr. Hawley had known of a similar case, in which the patient was a little girl.

Dr. Squibb (the subject of the use of the persulphate of iron for internal hæmorrhages being under discussion—see Dr. Conkling's case of typhoid fever) said that he had had a case of a child, poisoned by the internal administration of the liquor ferri persulph. The mother had administered the iron by mistake for ipecac, giving it in tea-spoonful doses. The child vomited, and threw considerable off. The child died with symptoms of congestion of the lungs. There was probably so much increase in the plastic element of the blood that it would not pass through the capillaries of the lungs. That the

liquor ferri persulph. was a valuable remedy in internal hæmorrhages Dr. SQUIBB had no doubt.

Dr. CONKLING had administered the persulphate of iron in hæmorrhage from the lungs, with the most satisfactory results.

Dr. MINOR thought the persulphate of iron, when administered internally, had a double action—both tonic and styptic.

Dr. CHAPMAN detailed a case where hæmorrhage from the lungs had continued in spite of all remedies, and yielded readily to the internal administration of the persulphate of iron.

Dr. J. G. JOHNSON reported a *case of Rupture of the Tendon of the Quadriceps Extensor Muscle, above the Patella.* The patient had continued about his work from the time of the receipt of the injury, without medical advice. He applied at the Long Island College Hospital for advice for stiffness of the knee. At this time, three and a half months after the injury, the following was the condition of the articulation: The ligamentum patella was perfect. The patella was somewhat lower than the other, and firmly held in place by adhesions, so that scarcely any lateral motion could be effected. The quadriceps tendon had formed new attachments to the skin, 17 lines above the patella. The finger could be carried under the upper edge of the patella in the same manner as it can under the acromion in dislocations of the shoulder. The depression above the patella, at the point where the rupture had occurred, was marked. The man could walk upon a level surface with no appreciable halt, but could not walk up and down stairs with facility. The injury had been produced by a fall from a board, which inclined from a hay-mow to the floor.

Dr. MINOR related a case of rupture of the sartorius muscle in a young man, while exercising in the gymnasium. He was boxing a suspended bag. He threw himself sideways towards the bag with his whole weight, when he felt something give way, and fell, unable to rise. Pain along the course of the sartorius muscle, and swelling with retraction of the muscle, left no doubt as to the injury; complete recovery ensued, with perfect use of the limb.

Dr. J. G. JOHNSON also reported a case of rupture of the gracilis, and probably some portion of the gastrocnemius. The patient was an elderly gentleman. One evening he attempted to remove his boot by pressing the heel of the boot against the toe of the other. The boot was difficult to remove, when a sudden wrench was given, and something was heard to snap, and he was powerless to walk. Swelling and pain along the junction of the tendo achillis and gastrocne-

mius revealed the point of injury. He recovered perfect use of the limb.

Dr. JOHNSON also reported a case, a girl of five years, where necrosis of nearly all of the left half of the inferior maxilla followed the removal of a tooth by a dentist. The necrosed portion of the jaw, including both coronoid and coracoid processes, were removed, and new bone was formed, with complete use of the jaw.

QUARTERLY REPORTS ON MEDICAL PROGRESS.

QUARTERLY REPORT ON SURGERY.

By J. J. HULL, M.D.

1. *Osteo-Plastic Resection of the Upper Jaw.* By Professor LANGENBECK. (London Medical Times and Gazette, September 7th, 1861.)
2. *Amputations, with Preservation of the Periosteum to cover the Sawn Ends of the Bones.* By Dr. J. F. HEYFELDER. (Medical Circular and General Medical Advertiser, October 2d, 1861.)
3. *A New Rhino-Plastic Operation.* By Prof. E. S. COOPER, M.D. (San Francisco Medical Press, July, 1861.)
4. *Notes of Cases in Surgery.* By FREDERICK C. SKEY, F.R.S. (London Lancet, December, 1861.)
5. *A Case of Lumbar Hernia.* Reported by Dr. CHAPPLAIN. (Archives de Médecine, December, 1861.)
6. *Rupture of Posterior Tibial Artery.* Reported by Dr. C. BLACK. (London Lancet, December, 1861.)
7. *Treatment of Fractures by Plaster of Paris Splints.* By Dr. JAMES L. LITTLE. (American Medical Times, December 7th, 1861.)
8. *The Relation of the Insertion of the Capsule of the Hip-Joint to Intra-Capsular Fracture.* By Dr. GEORGE K. SMITH. (American Medical Times, December 14th, 1861.)
9. *A New Operation for the Radical Cure of Umbilical Hernia.* By Mr. BARWELL. (London Lancet, January, 1862.)
10. *Cystotomy without a Stone.* Reported by T. PAGET. (British Medical Journal.)
11. *Artificial Anus in the Lumbar Region.* (Bulletin de Thérapeutique, October 30, 1861.)
12. *Acute Ostitis, resulting in the Separation of the Shaft of the Tibia from its Head within Three Weeks.* By Prof. J. W. HAMILTON, M.D. (Ohio Medical and Surgical Journal, January, 1862.)

1. "The patient, a boy, aged 15, had always been healthy until two years ago, when he perceived a want of air in the left nostril, which soon became perfectly impermeable, the voice being changed at

the same time. About seven weeks ago the left cheek and the eye began to protrude, and the latter, although otherwise healthy, was no longer used for seeing. No tumor was visible from the nostril, nor from the mouth, while in the middle of the left palatine process of the upper jaw, the floor of the cavity of the nose appeared to be pressed towards the cavity of the mouth, and this part felt soft and elastic, on account of the dislodgment of the palatine bone. Behind the soft palate a firm, lobular tumor could be felt in the left choana, which was quite filled up by it, the introitus into the left side of the nose being blocked up. This latter space appeared to be considerably enlarged, while the right choana and nostril were narrowed. The osseous septum narium was dislodged towards the right side. The teeth in the left upper jaw were quite healthy, and fast. The slight prominence of the left cheek was caused by a tumor between the masseter muscle and the upper jaw. The left zygomatic arch was a little more prominent, and the lower part of the left fossa temporalis fuller than is commonly the case. Nothing morbid could be discovered in the orbit.

"Other surgeons who had seen this patient contended that it was a case of naso-pharyngeal polypus; but Professor Langenbeck argued against this opinion, that all tumors which are not cancerous, as, for instance, the polypi, grow in that direction in which the least resistance is offered by surrounding parts; and that therefore, a naso-pharyngeal polypus would grow into the sinus frontalis, sphenoidalis, and maxillaris, and the labyrinth of the ethmoid bone, and might distend the walls of those cavities, but that it could not grow from the naso-pharyngeal cavity into the fossa pterygo-palatina, and round the upper jaw forward. Others thought that a tumor in Highmor's cavity existed; but to this M. Langenbeck objected, that the walls of that cavity were nowhere projecting, but on the contrary, its external wall was decidedly flattened. He therefore, before performing the operation, mentioned that the case was one of a fibroid of the fossa pterygo-palatina, which had grown from there through the foramen spheno-palatinum into the naso-pharyngeal cavity, the fossa spheno-maxillaris, and round the upper jaw between its external wall and the masseter muscle towards the mucous membrane of the cheek. He also said that the resection of the zygomatic arch, which he had done in a previous case, was sufficient for the extirpation of tumors which grew from the fossa pterygo-palatina into the fossa spheno-maxillaris and temporalis; but that, in this patient, in whom the tumor had penetrated from the fossa pterygo-palatina into the naso-pharyngeal cavity, the

resection of the entire left of the upper jaw was absolutely necessary. In order to avoid mutilation of the face, he intended trying to replace the upper jaw after the removal of the growth.

"The operation was done on July 1, the patient being under the influence of chloroform. Two incisions were then made through the skin; the lower one of these from the place of insertion of the left ala nasi in the cheek, and through this towards the lower edge of the zygomatic arch, and along this bone to the middle of the zygomatic process of the temporal bone. The upper incision proceeded from the nasal process of the frontal bone along the lower edge of the orbit, and beyond the frontal process of the upper jaw to the middle of the zygomatic process of the temporal bone, where it met the lower incision in an obtuse angle. Without separating the skin from the soft parts below it, the operator then penetrated through the lower incision towards the jaw, cut through its periosteum, and separated the masseter muscle from the lower edge of the zygomatic bone. After the fascia buccalis, which was strongly prominent, had been cut through, a lobular, white, shining tumor became visible, which extended between the external surface of the upper jaw, and the coronoid process of the lower jaw, towards the fossa spheno-maxillaris, backward. After the lower jaw had been separated from the upper one by means of a speculum, the tumor could without difficulty be removed from the upper jaw, and the left forefinger, proceeding between the upper jaw and the tumor, could reach the fossa pterygo-palatina. As the upper jaw had been compressed by the tumor, and the fossæ spheno-maxillaris and pterygo-palatina were considerably enlarged, a slight pressure was now sufficient to allow the introduction of a fine elevatorium into the pharyngeal cavity. A fine and narrow saw was then introduced from without into the pharyngeal cavity, through the fossa pterygo-palatina and the foramen spheno-palatinum; and the operator sawed through the whole upper jaw, from behind forward, with a horizontal cut, while the left forefinger, which had been introduced into the pharyngeal cavity from the mouth, caught the point of the saw, and prevented its touching the septum narium. The second incision through the skin was then likewise made down to the bone; the operator penetrated into the orbit, and cut the soft parts in the angle between the frontal and temporal processes of the zygomatic bone. The second cut of the saw went from below upward through the zygomatic process of the temporal bone, and through the orbital process of the upper jaw to the lachrymal bone. The resected jaw was now only connected with

the left lachrymal bone and the nasal process of the frontal bone, by means of its nasal process, which had not been divided; and in this part the skin had also been left entire, to allow nutrition to go on. Neither were the hard palate and the alveolar process of the jaw touched. The jaw was now raised by means of an elevator, introduced below the zygomatic bone. This was done without any difficulty, the jaw moving easily in the connection with the left nasal bone and the nasal process of the temporal bone, as if it were in a joint, and was raised like the lid of a snuff-box, so that the zygomatic bone was nearly on the median line of the face; and the fossæ spheno-maxillaris and pterygo-palatina, and the naso-pharyngeal cavity, had thus become easily accessible. The peduncle of the tumor was now seen to be attached in the fossa pterygo-palatina, proceeding from there towards each side; it was as large as a fowl's egg, and one part filled the naso-pharyngeal cavity; the other, the fossa spheno-maxillaris. The antrum Highmori, which had been opened by the horizontal cut of the saw at its inferior point, was empty, and quite normal, although somewhat narrowed by the pressure of the tumor from behind and without. The peduncle of the tumor was then separated by means of a broad elevator from the fossa pterygo-palatina; the part, which was in the cavity of the pharynx, was then caught with a strong polypus-forceps, and drawn out. The foramen spheno-palatinum and the fossa pterygo-palatina were enlarged to three times their normal size. The tumor was then entirely removed; and nowhere could a perforation of the basis cranii be discovered.

"The hæmorrhage during the operation was very considerable, on account of the dilatation of the arteries; but at the end it ceased spontaneously. Only the arteria spheno-palatina was tied, at its entrance in the foramen spheno-palatinum, and the ligature conducted through the left nostril. After the wound had been most carefully cleaned, and the operator had again satisfied himself that nothing was left behind, the jaw was again pressed backward into its normal position, and the places where it had been sawed brought into contact. The jaw showed a disposition to swing upward to the nose, so that a slight pressure had to be exercised upon it before the wound was entirely united by means of iron sutures. Some cerate and a thick layer of charpie were then placed upon the wound, and fixed by a bandage. The operation had lasted nearly an hour. Much chloroform had been used, and the little patient had shown some excitement during the intervals of insensibility.

"The further course of this case was very satisfactory. There was

at first some fever and suppuration; but in little more than a fortnight the wound was quite healed. The appearance of the face was then nearly normal. The upper gum had quite regained its usual position, and there was no swelling of the soft parts; only the conjunctiva palpebrarum was a little puffed, but the eye did no longer protrude. There was imperfect palsy of the orbicularis muscle, and the eyelids could not be quite closed. Besides, the infra-orbital nerve and the ganglion spheno-palatinum had been destroyed by the operation, so that there is, of course, anæsthesia of the parts animated by them. In all other respects it was a perfect cure; and it appears, therefore, that henceforward it is no longer allowed to remove the upper jaw in cases of this kind. We may well congratulate M. Langenbeck for having successfully completed—not only a novel operation of importance—but one of the nicest and most difficult on record."

2. "The experience of M. Flourens on the development of the bones and functions of the periosteum, as well as the observations of Messrs. Ollier, Demarquay, Langenbeck, &c., on the success of subperiosteal resections, gave rise to the idea of making use of the periosteum to cover the ends of bones after amputation; an idea which has been here put in practice by myself and by Dr. Symbolid, at the Workman's Hospital, and also at the Chief Military Hospital at St. Petersburgh.

"The following are some of the facts observed:

"Case 1.—The 28th March, 1860, J. F., aged thirty-four, underwent amputation of the right leg, the tibio-tarsal articulation of which was carious.

"The removal of the member was effected by the antero-posterior flap operation.

"The periosteum of the anterior part of the tibia was preserved to the extent of two inches. First making an incision, it was then carefully detached from the bone by means of the back of the knife, and served to cover the sawn end of the tibia.

"At the first dressing, which took place forty-eight hours after the operation, we found the greater part of the wound already united.

"On the 15th of April the ligatures came away; and on the 24th the linear cicatrization was complete, and we looked upon the patient as quite cured.

"Case 2.—J. M., twenty-six years of age, who, a year and a half previously, had undergone amputation of the left arm, and resection of the right metacarpal bone of the right hand for caries, was again

operated upon for the same disease on the 29th of April, 1860, the tibio-tarsal articulation of the right ankle being the seat of the disease. It was removed in the manner described in the first case, only the periosteum was not only preserved on the tibia, but also on the fibula, which it afterwards covered.

"On the 11th of May the ligatures came away; and on the 22d the linear cicatrization of the wound was complete.

"CASE 3.—On the 6th of May, 1860, F. K., thirty-nine years of age, of delicate constitution, underwent amputation of the left leg, for caries of the tibio-tarsal articulation. Its removal was effected by the antero-posterior flap method, preserving the periosteum of the two bones for the purpose of covering their extremities.

"At the end of the month union and linear cicatrization were complete.

"At the Workman's Hospital nine operations were performed in the same manner, with preservation of the periosteum; namely, three of the forearm, two of the thigh, and four of the leg.

"Of these nine cases, two died of pyæmia, (one had the thigh amputated, the other the leg,) whilst the seven others recovered in the space of from four to six weeks.

"CASE 4.—A short time ago, a clerk employed at the railroad had the second and third phalanges of the index finger of the right hand crushed, and the following day he underwent amputation in the middle of the first phalanx, with preservation of the periosteum, by means of the double-flap method. The edges of the wound were united, as in the other cases, by adhesive straps, and the cure was complete in fifteen days.

"What strikes us in these cases, is the rapid cure of the greater number of the patients, particularly at the principal Military Hospital, which, in every respect, may be considered one of the best in Europe. The sooner a patient is cured, the less we need fear that purulent infection, which in our country, as everywhere else, carries off many of those operated upon.

"Amputation by the circular method does not prevent preservation of the periosteum, although by the flap operation the periosteum is more easily retained in the position in which it is placed after the operation.

"It is difficult to detach the periosteum when in a healthy state, and, as we have proved, it is not always done without laceration. To avoid this inconvenience, we commence by first making a semicircular incision in the periosteum, and then detaching it from the

bone by means of a scraper. However, we can affirm that a slight laceration of the periosteum does not prevent its application over the bone, and the cure is not in any way impeded."

3. "We have had several cases recently, in which we practiced, with entire success, the method of introducing thin arched plates of virgin silver into the soft tissues, to hold them up when the bones of the nose had been lost. Thus far, they bid fair to succeed admirably, as there is every prospect that these plates will become encysted, in most cases, though time enough has not been given to test the method in this respect. There is one advantage this plan has over that of transplantation, viz., that it entails no additional deformity, even should it fail entirely in relieving the one for which it is tried, and we believe that in all cases it may be rendered beneficial, where bone structure alone has been lost. We have a case under treatment now, in which a considerable part of the ossa nasi, the vomer, and a fragment of the superior maxilla were lost—so much so, that the major part of the tissues representing the nose rested entirely below the surrounding surface. A more disagreeable deformity of the organ could not possibly occur."

In this case the integuments were raised and dissected each way for nearly two inches, and the two arched plates of silver, shaped like the ossa nasi, were introduced, and the integuments brought over them, so that the nose at once assumed the natural shape of one pretty well formed, which it retains still, six weeks after the operation.

4. M. Skey gives an interesting sketch of three months' service at St. Bartholomew's Hospital, from which the following extracts are selected:

He regards with much favor the operation of *Lithotrity*, and thinks there are comparatively few cases of calculus in which it is not available. The following cases are given:

"A man, aged 68, admitted in November last, had suffered from symptoms of stone for three years, during which he had passed about 100 small stones, varying in size from that of a large shot to that of a pea. I broke the stone by eight several operations, each of which was unproductive of serious pain, and was followed by more or less relief. A small fragment only remained in the bladder. After the last operation, which was not characterized by any remarkable feature, he had rigors, vesical pain, and low fever, and he died. The post-mortem examination revealed disease of long standing in both kidneys.

"A boy, aged 15, admitted in October, had had symptoms of stone for two years. I crushed the calculus, which I presumed to be about the size of a large almond, twice only, at an interval of ten days The boy left the hospital well.

"A boy, aged 10, admitted in January, had suffered from symptoms of stone for three years, during which he is reported to have had several attacks of retention of urine. His urethra being large, and readily dilatable, I decided on treatment by lithotrity, and for which I had a small lithotrite made. The stone was crushed twice, without pain. On the following morning a fragment of stone became impacted in the urethra, and retention supervened. No alternative remained but lithotomy. As I was unable to pass a staff in the bladder, I cut down on the urethra without it, and having removed two large fragments of stone from the canal, I opened the bladder by the aid of a staff, and expelled the residue of the calculus by injection. More than half the stone had lodged in the urethra. The boy recovered. I freely confess the attempt to remove a stone from the bladder of a boy ten years of age, by lithotrity, to have been an error in judgment. The first fragment that escaped was of considerable size, and at once blocked up the canal. The rule I have constantly adopted for my own guidance is, never to operate with the lithotrite unless the urethra will admit a catheter of the size of No. 9 or 10. In this patient's case the lithotrite was No. 6, though the urethra was dilatable to about No. 7, or perhaps 8.

"A man, aged 72, was admitted in May, from whom I had removed a stone by lithotrity in 1851. The peculiarities of this case were connected with the physical qualities of the stone itself, from which arose a very protracted term of treatment. I operated on him no less than seventeen times; and I may remark, after some considerable experience of the operation of lithotrity, that the hardest calculi I have ever broken have consisted of lithic acid, and not of oxalate of lime. I never once *crushed* this patient's stone; I only broke it into small fragments. No part of it was ever reduced to powder, as in other examples; but the entire stone, when finally collected, consisted of a multitude of fragments of nearly equal magnitude—about that of a large shot. The force of the screw required to break the stone continued very great up to nearly the last operation. On several occasions I came to apparently a dead-lock, and it required all the power at my command to screw the instrument home. Notwithstanding this force, at the termination of the case the blades of the lithotrite did not indicate more than a very slight strain in the work-

manship, so perfect is the material of which these instruments are constructed."

Mr. Skey advocates the stimulating treatment of *Burns* first suggested by Dr. Kentish. He thus speaks of five cases admitted into the hospital with severe burns on the face, head, chest, and arms: "One died immediately after his arrival. My house-surgeon, Mr. Richard Smith, was at the time ill, and the immediate charge of these cases devolved on a colleague, who applied the oil and lime-water to the arms and hands of each of the surviving men. At that moment Mr. Smith arrived, and completed the dressing by the application of a solution of nitrate of silver (ten or twelve grains to the ounce of water) to the face, neck, &c. I did not see these men till the following morning, when all four complained of severe burning pain in the arms and hands; but stated they were free from pain in the other affected parts. The stimulating solution above mentioned was applied to the upper extremities, and the relief at the expiration of about a quarter of an hour was complete. In two of the cases some pain returned on the third day, and relief was obtained by the same means. My directions are simply these: In the case of infants or young children, wash the affected surface, if not very extensive, with a solution of nitrate of silver, in strength six or eight grains to the ounce, and immediately cover up the part with a thick mass of cotton wool; in the case of an adult, from twelve to fifteen grains, unless the surface requiring the application be very large. Should pain return, the solution may be advantageously resorted to at any early stage of the treatment."

Varicose Veins of the leg are treated by Mr. S. by the application of the Vienna paste, composed of two-fifths potassa fusa and three-fifths quick-lime. He has never seen evil consequence, either local or general, result from its application to the largest and most prominent vein, however thin the textures over it. "The eschars can scarcely be made too small, provided the materials of which it is composed be thoroughly good and recently mixed. The numbers vary according to the extent of the disease. From twelve to eighteen will suffice usually for a limb somewhat largely affected. As regards the period of time required for the after-treatment, it is of course no great moment whether the eschars be five or twenty-five, as they all progress towards recovery at the same time. The cure is generally, but not invariably, permanent."

Mr. Skey has little or no confidence in the efficacy of blisters and tincture of iodine in the treatment of *Housemaid's Bursæ*. Instead,

"he passes a full-sized thread through the centre of the swelling, be it large and hard, giving the sensation of a solid mass, but in the centre of which is always found a small cavity or fissure; or be it soft, and containing fluid, whether large or small, suppuration, in the course of from two to five or six days, will inevitably follow." The thread is then removed, and the disease being converted into an abscess, is treated as such. He states that on this principle he has cured from 100 to 200 cases. The only caution necessary is the removal of the thread when the orifices indicate the inflammatory action due to its presence. On the same principle, and with the same agent, is *Ranula* treated. "Indeed, it is quite remarkable with what rapidity this disease recedes under the action of the thread, whether the cyst be of average or of the largest size. Of the latter I have reported some, and treated several of such magnitude as to require the lower end of the thread to be brought out in the neck at some distance below the base of the jaw."

The following case of *Strangulated Hernia* is selected as possessing considerable interest in presenting complications calculated to render a diagnosis obscure: "An old woman, aged 88, was admitted in May last. She was the subject of a double hernia, femoral on the right, and inguinal on the left side. The right presented a hard and painless swelling, which, according to the old lady's positive declaration, had existed in its present condition for many years. It gave her neither pain nor discomfort. The left swelling was large, soft, and painful. Examination by the hand was invariably followed by sickness and by shooting pain into the abdomen. I thought I succeeded in returning a portion of the mass into the abdomen; but the symptoms continued, and I decided to operate. The woman being placed under the influence of chloroform, with the concurrence of my colleagues, Messrs. Lawrence, Stanley, and Savory, I exposed the mass on the left side. The sac contained omentum only, and a part of which was readily returned through an opening which admitted a finger without effort. The right swelling was left untouched; this decision being arrived at on the positive assurance again and again given by the patient that she had never suffered a moment's pain or inconvenience from the swelling in the right groin, and also from the probability that the intestine had been returned before the operation. The symptoms, however, continued unrelieved; vomiting and constipation were as urgent as before, although her constitutional powers appeared little reduced by the previous discipline. On the following day I operated on the hard and insensible swelling in the right groin. On opening

the sac, a quantity of venous blood escaped. A large knuckle of small intestine formed the mass of the swelling, which was highly congested with blood, and was shut off from the abdomen by a very tight stricture, which was divided with some difficulty. The peculiar features in this care are, 1st, the double hernia; 2dly, the peculiar sympathy manifested by the stomach, as the dominant organ of the abdomen, with the tumor on the left side, where there existed a strangulation; and, 3dly, the entire absence of physical pain connected with the femoral hernia of the right side. Although the sickness and vomiting were no doubt maintained by the condition of the strictured intestine of the right side, yet the immediate relationship between the stomach and the tumor of the left side was so striking as to attract the observation of my colleagues as well as myself. This fact, the entire absence of local pain on the right side, and the woman's repeated request that we should 'leave the right side alone,' decided the question of the operation to be selected."

5. Dr. Chapplain reports a case of lumbar hernia; this rare lesion, he says, never having been seen before except by Petit, Cloquet, and Pelletan. It occurred one month before the patient entered the hospital, by his being caught between a wall and the wheel of a cart. It was situated in the right side, immediately above the crest of the ileum, under the last rib; being of oval form, its greatest horizontal diameter about three inches, and its greatest vertical diameter two inches. Easily reducible by pressure, and upon the assumption of the recumbent posture, when a deep furrow into which the hand could be introduced, was formed. Standing caused its return; increased by cough and movements of the body. On gentle pressure, the tumor presented a fluctuation like that given by a cold abscess, and being compressed, it communicated a sensation of gurgling.

6. A railway engine-driver was admitted into the Chesterfield Hospital with simple fractures of the right thigh and leg, caused by being precipitated down an embankment twenty feet high, in consequence of his engine running off the track. On admission, the popliteal and anterior tibial arteries were pulsating, but the posterior tibial could not be distinguished. The following day neither of the tibials could be felt; the limb was very much swollen from the knee downward; the toes were cold; the instep and lower part of the leg were of lower temperature than natural; the skin presented patches of livid discoloration, particularly about the lower part of the leg. Mortification steadily advanced, the patient becoming gradually reduced, until the tenth day, when amputation of the leg was performed.

Immediately after the limb was examined, and the following appearances found: "The thick, muscular portion of the gastrocnemius and soleus muscles was much crushed and disintegrated, and the surrounding tissues were full of effused blood. Around their broken-down débris there was an attempt to set up suppurative action, and traces of pus might be detected mixed up with the decomposed tissues. *The posterior tibial artery was lacerated, and torn upwards of two inches.* The venæ comites were also ruptured. *The portion of the artery injured extended from above the origin of the peroneal to some distance below it.* The intermuscular fascia was torn, and the deep muscles of the leg but slightly injured. The posterior tibial nerve, the interosseous ligament, and the anterior tibial artery were entire. The tibia was transversely fractured about two inches below its upper extremity. The fracture was a simple dentated one, and the ends of the bone were not displaced. The fibula was fractured nearly three inches below obliquely." Patient died about thirteen hours after the operation.

7. The first use of plaster of Paris in the treatment of fractures is not of recent date, it having been employed, according to Dr. Little, as early as 1814, by Hendrikes, at the Hospital of Groningen, and afterwards by Hubenthal, Kyle, and Dieffenbach. It was also used by Velpeau, as described by Professor Van Buren, of this city, in the *American Journal of Medical Sciences*, for May, 1840. It had nearly fallen into disuse, however, until recently, when it was revived by Maisonneuve, of Paris. It was first used to any extent at the New York Hospital, about three months ago, and now, so satisfactory have been its results, that it has almost entirely taken the place of the ordinary starch bandage. Its advantages over the latter are stated to be: "Its facility of application, and its perfect adaptation to the limb; rapidity of drying and hardening—the plaster taking about five minutes 'to set' *while being held by the surgeon in its proper position*—the starch apparatus requiring several days to dry, unless artificial heat is applied; that the limb can be inspected daily if necessary, without removing all the apparatus, and therefore the plaster can be applied much earlier than the starch. It may be well to state that the starch apparatus has been generally used in this institution only after the fracture has become tolerably firm, since in several instances where it has been applied early in the treatment, marked deformity has resulted. But the plaster of Paris casing allows the anterior surface of the limb to be exposed, and any displacement can consequently be readily detected. Its advantage over the gutta percha is its great porosity; keeping the limb perfectly dry without confining the perspi-

ration, and thus doing away with one cause of irritation and excoriation. It does not require padding like the gutta percha, and it is much cheaper; an important item in hospital practice.

"*The mode of application to the leg is as follows:* The limb is first shaven or slightly oiled; a piece of old, coarse, washed muslin is next selected of a size, so that when folded about four thicknesses, it is wide enough to envelop more than half of the circumference of the limb, and long enough to extend from a little below the under surface of the knee, to about five inches below the heel. The solution of plaster is then to be prepared. Fine, well-dried white plaster had better be selected, and before using, a small portion should be mixed with water in a spoon, and allowed 'to set,' with a view of ascertaining the length of time requisite for that process. If it is over five minutes, a small quantity of common salt may be dissolved in the water before adding the plaster. The more salt added, the sooner will the plaster 'set.' If delay be necessary, the addition of a few drops of carpenter's glue or mucilage will subserve that end. Equal parts of water and plaster are the best proportions. The plaster is sprinkled in the water, and gradually mixed with it. The cloth, unfolded, is immersed in the solution, and well saturated; then quickly folded, as before arranged, and laid on a flat surface, as a board or table, and smoothed once or twice with the hand in order to remove any irregularities of its surface, and then, with the help of an assistant, applied to the posterior surface of the limb. The portion extending below the heel is turned up on the sole of the foot, the sides folded over the dorsum, a fold made at the ankle on either side, and a roller bandage applied pretty firmly over all. The limb is then to be held in a proper position (extension being made, if necessary, by the surgeon) until the plaster becomes hard. The time required in preparing the cloth, mixing the plaster, and applying the casing to the limb, need not be more than fifteen minutes. After the plaster is firm and the bandage removed, we will have a solid plaster of Paris case, partially enveloping the limb, leaving a portion of its anterior surface exposed to view. If any swelling occurs, evaporating lotions can be applied to the exposed surface, and we can always easily determine the relation of the fractured ends. If necessary, an anterior splint made of the same material can be applied, and then both bound together with adhesive plaster, and, if desirable, a roller bandage over all. If the anterior splint is not used, two or three strips of adhesive plaster, one inch wide, or bands of any kind, may be applied around the casing, which will serve to keep it firmly adjusted to the limb. Thus applied, we

have a most beautiful splint, partially enveloping the limb, making equal pressure, light, and allowing the patient to change his position in bed, to sit up in a chair, or go about on crutches, and a splint which can be easily made in any place where plaster is to be had.

"This mode of dressing may be applied with great advantage in most cases of *fractures of the tibia and fibula.* In oblique fractures of the tibia, with the projection of the superior fragment, it is well known how difficult it is to overcome the deformity; with the plaster of Paris splint, however, the results have been all that could be desired. After extension of the limb, on the part of an assistant, for the sake of bringing the fragments into perfect apposition, and while thus held, the plaster splint should be applied and allowed to harden. The limb is thus perfectly immovable. A strip of two or three thicknesses of muslin, about three inches wide, saturated with the plaster, may be applied transversely, if necessary, over the upper fragment, so as to bind it down in position.

"The cases in which this dressing is not applicable are those of fracture of the fibula with rupture of the internal lateral ligament, or what is more common, a chipping off of a portion of the internal malleolus, with the turning of the foot outward. Where the deformity is considerable, it cannot always be overcome at once, but requires steady pressure, with properly arranged pads, and the side-splints, to bring out that result. This effected to a certain extent, the plaster apparatus may be applied with advantage. In cases of fracture of the fibula, without any displacement of the foot, it may be applied early in the treatment; upon the entire subsidence of the swelling it will become necessary to apply a new one. This second dressing, in most cases, will be sufficient for the remaining treatment.

"*In fractures about the knee-joint*, and in cases of *synovitis*, where a posterior splint or knee-cap is needed in order to keep the limb in a straight or semi-flexed position, this mode of forming a splint can be made use of, and answers better than the gutta percha. We have applied it to one case of synovitis, after the acute symptoms had been subdued by the means of extension and counter-irritation, and it formed a very good posterior splint. *In fractures of the tarsal bones*, it may likewise be used with advantage. Here it should be long enough to envelop the foot as far up as the toes. Two cases of *fracture of the astragalus* have been treated in this manner with good results.

"For *fractures of the lower jaw*, it can be made use of to construct a splint in the usual manner.

"In *fractures of the neck of the humerus*, where a shoulder splint, as

recommended by Hamilton, is necessary, this may be made use of; it would make a much better and cheaper splint than the gutta percha, and it would fit the shoulder more accurately than any wooden splint that could be made.

"In *fractures of the shaft of the bone* it may also be used. It should be long enough to extend from the shoulder to the hand, and applied to the outside of the limb, the limb being flexed to a right angle, and extension being made so as to keep the fragments in position until the plaster 'sets.' If necessary, a small splint made of the same material can be applied to the inner side of the arm, and both bound together with a bandage. The limb, of course, is to be placed in a sling.

"For *fractures at the base of the condyles*, and other fractures in the vicinity of, and involving the elbow-joint, which require the arm to be kept in a flexed position, it is decidedly the best mode of dressing. For this purpose, angular splints made of tin, gutta percha, or pasteboard, are commonly used, and all require some little time for their construction. The plaster of Paris splint can be made in five minutes, and will fit itself to the inequalities of the arm more accurately than any other."

Dr. Little states that the plaster of Paris has never given rise to excoriations of any kind, and in several instances where it has been applied over denuded surfaces, it has appeared to exercise a healing influence.

8. The views that Dr. Smith takes in this highly interesting article are based mainly upon the fact that the point of insertion of the capsular ligament varies much in different individuals, as he has found by careful examination and accurate measurement of the normal capsule in sixty-one specimens. The following is the summary of his paper, as read before the Surgical Section of the New York Academy of Medicine:

"*First.*—The insertion of the capsular ligament of the hip-joint varies so greatly that scarcely any two specimens of the normal capsule taken from different subjects can be said to be inserted into the neck of the femur at the same point; and so wide are the differences seen, that, if a transverse fracture of the neck of the femur be located at a given distance from the posterior inter-trochanteric line, it will be found to be entirely included by the capsular ligament in one specimen, and on the posterior and inferior surfaces of the neck, half an inch or more external to the capsule, in another; hence it is impossible to determine the precise location of capsular insertion by measurements of the neck of the femur after the removal of its capsular liga-

ment; and it is also impossible to indicate the line of capsular attachment, by comparing the dried bone with a specimen taken from another subject, to which the capsule still remains attached.

"*Second.*—The descriptions of the insertion of the capsular ligament given in our works on anatomy are even more widely at variance than the differences seen in nature. Some locate the posterior insertion of the capsule at the middle of the posterior surface of the neck, some at the posterior inter-trochanteric line, and others at all points intermediate between these two extremes; hence, if fracture of the neck of the femur occurs at any point between the head of the bone and the posterior inter-trochanteric line, we can find authority among anatomists for believing that the fracture is intra-capsular; and it will be observed, that notwithstanding the extreme diversity among our authors in describing the insertion of the capsular ligament, *not a single one even intimates that it ever varies from the position which he himself has assigned to it.*

"*Third.*—The insertion of the capsular ligament is often removed by the morbid changes consequent upon fracture of the neck of the femur; therefore, the capsule of the fractured bone cannot be said to furnish reliable evidence that the fracture was within the normal capsule. The normal capsule is usually inserted into the middle of the posterior and inferior surfaces of the neck; in some instances a little nearer the head of the bone than this point, and in others more remote, *but never as far distant as the shaft of the bone;* while the capsule of the fractured bone is often found to have its insertion into the shaft, the entire neck of the bone having been removed by absorption before union occurred.

"*Fourth.*—The capsular ligaments of the opposite femurs of the same subject are exactly alike in their insertions into the neck of the bone; hence, if the surgeon, who makes an autopsy after union of fracture of the neck of the femur, removes both hip-joints, the insertion of the capsular ligament of the sound femur will show the normal insertion of the capsular ligament of the fractured bone; and a comparison of the two specimens will determine at once whether the line of union in the given specimen be altogether within the normal capsule.

"*Fifth.*—The line of union in a given specimen of fracture of the neck of the femur cannot be said to indicate the exact position of the line of fracture, if the neck suffered loss by absorption before union occurred; since it is impossible to determine that the loss of structure was entirely at the expense of either fragment of the neck. Some sur-

geons have recorded as examples of bony union of intra-capsular fracture, cases in which the neck was completely removed by absorption, and the head of the bone closely united to the shaft, and have claimed in these instances that the neck was fractured close to the head of the bone; while other surgeons, who also regarded the line of union as being identical with the line of fracture, have maintained that the fracture in each of the given specimens occurred close to the shaft of the bone.

"*Sixth.*—Under favorable circumstances, fractures of the neck of the femur, external to the capsular ligament, unite readily by bone; so, also, do fractures which are partly within and partly without the capsule; and it is highly probable that fractures within the capsule, which are followed by absorption, are sometimes united by bone, after the process of absorption has reached a point external to the normal capsule, where bony material is supplied; but this, if it ever does occur, can never be proven; for if the line of union be partly without the normal capsule, it is impossible to determine that the fracture was entirely within it; and we can never be positive that bony union of intra-capsular fracture has occurred, until a specimen is presented in which the line of union is found to be entirely included by the nor-normal capsule.

"*Seventh.*—Fractures of the neck of the femur are in most instances followed by the absorption of a part, or the whole of the neck; and a careful review of the cases recorded as proofs of bony union of intra-capsular fracture, shows that, in the great majority of cases, the posterior surface of the neck of each specimen had lost very much of its length by absorption before union occurred, and that the line of union on this surface, although included by the morbid capsule of the specimen, was too near the shaft of the bone to be included by any specimen of the normal capsule.

"*Eighth.*—Fracture within the capsule is followed to a greater or less extent by disease of the different tissues which constitute the hip-joint; and the neck of the femur being very imperfectly nourished after the fracture, usually suffers great loss by absorption, before union occurs; so that its appearance after union resembles that appearance of the neck which is described by pathologists as the result of an interstitial absorption of the neck, which occurs without fracture, as a consequence of old age. So closely allied are these appearances, that eminent pathologists in this and in other countries have claimed, with at least a fair show of reason, that many of the specimens hitherto exhibited by surgeons as proofs of bony union of intra-capsular frac-

ture, have been examples illustrative of the changes produced by interstitial absorption; hence, in the further investigation of this subject, it becomes a matter of great importance that the diagnosis of fracture of the neck be clearly made out, and that it be vindicated by competent surgeons in consultation, and placed upon record in anticipation of an opportunity to complete the history of the case, it may be years afterwards, by describing the post-mortem appearance of the fractured bone."

9. In many infants with exomphalos, nothing more than an abdominal bandage and pad are required to effect a cure. In others, however, the protrusion increases in size; they suffer greatly with colicky pains and flatulence, and ordinary means for their relief fail. For the radical cure of the latter, Mr. Barwell has devised an operation which he has performed with complete success. Three of the five cases (all successful) are reported, and the operation in one described as follows:

"The hernia having been returned, and a careful examination showing that absolutely no abdominal protrusion remained, an assistant held his finger over the opening. The skin of the navel and surrounding part being pinched into a transverse fold, a bistoury was thrust through so as to make a longitudinal incision over or even into the sac, which was then freely opened, the tough remains of the umbilical vein turned upward and the ring exposed. There was now some little difficulty in keeping the bowel back, and yet allowing sufficient room for the further steps; but the spoon end of an ordinary grooved director was passed through the navel, and then held against the inner part of the opening, *i. e.*, against the inside of the belly, stopping the hole internally, instead of externally. Three silver sutures were then placed across the gap, the precaution being taken to seize each edge with forceps, and turn it forward, so as absolutely to see the point of the needle safely beyond all chance of wounding the bowel. When the sutures were all placed, but not fastened, the director was withdrawn, the wires were twisted, and the opening was seen to be satisfactorily closed. The external wound was also secured with silver sutures." In neither this nor the other four cases was there a single inflammatory symptom following the operation. The respective ages of the three cases given were six months, thirteen months, and eight years; and Mr. Barwell adds, that the operation may be performed as well on adults.

10. Mr. Paget relates the case of a boy, aged three years and eight months, who was brought to the Leicester Infirmary with the following history: For two years he had had violent pain in micturition,

which was very frequent, attended by sudden stoppages of the stream, and the making of a larger quantity of water immediately after; violent screaming, pulling of the parts, and forcing of fæces. Around the anus were several livid lumps of hæmorrhoids. No urine ever passed except while in a sitting posture. The sound being introduced, an indication of stone was given, but the click, though audible, was not sufficiently clear to seem to warrant an operation. However, after much hesitation, being influenced by the character and intensity of the symptoms, the hopefulness of permanent good if there were a stone, and the rare occurrence of death after lithotomy, especially in children, the operation was determined upon and performed. Frequent attempts with various forceps were made, after the bladder had been reached, but no stone could be found; the movements of the forceps imparted a feeling of slight grating like that often produced by steel instruments rubbing over cut muscular fibres, but no click could be heard. The case terminated fatally in forty-eight hours. On examination, the genito-urinary organs in every part were found free from calcareous matter. After removing the bladder, the sound was passed with the integuments of the abdomen closed, and the muffled click was heard again, though less distinctly. On opening the pelvis again, this was found to arise from the point of the sound impinging upon the iliac portion of the brim of the pelvis, the edge of which was unusually thin and sharp, which Mr. Paget thought might be the explanation of the click and feeling imparted to the instrument before the operation.

11. The child was born with an imperforate anus in 1852. The late M. Amussat, after a very careful and prolonged dissection, could not find the *cul-de-sac* of the imperforate bowel. It then became a question whether the search should be carried further and at random into the pelvis, or whether a lumbar anus should be made. On consultation with the medical men present, he decided on the latter measure. By a careful dissection, the colon was reached, and gases escaped. Notwithstanding the severity of the two operations, the child did well; the motions passed through the abnormal orifice, the patency of which had been secured in the ordinary way. Six days after it was decided, on consultation with eminent surgeons, that no fresh operation should then be undertaken. At six months old the child was well and cheerful, evacuations regularly taking place at the lumbar opening, the new aperture being usually stopped by a wax plug. M. Amussat, Jr., had an opportunity, in 1859, seven years after the operation was performed, of seeing the child. He was quite well and

lively, the functions of the new anus being very regular in their performance. A wax bougie is worn in the aperture, fastened by an elastic belt.

12. "Several weeks previously, the young man (aged 17 years) had an attack of what the then attending physician supposed was erysipelas of the leg. All the soft parts, from the knee to the ankle, were involved in intense inflammation. In a few days there was extensive suppuration. At the end of about three weeks from the commencement of the inflammation, the young man was moved from one bed to another. As this was being done, he complained of intense pain, and there was an escape of blood from the sinuses just below the head of the tibia, to the extent, as the mother believes, of a pint. When the limb was adjusted, it assumed the exact shape, say the family, in which I found it. Chloroform being given, it was demonstrated as being completely separated at the point mentioned. Even at the time of this examination, only about four weeks from the commencement of the symptoms had elapsed, but I have no sort of doubt but the separation was complete from the time of the removal, a week before. This presents a case which, as far as my observation extends, is without a parallel.

"Although all this had occurred with little, if any, perceptible effort at substitution, yet the lad's general condition being admirable, it was thought best to put the limb in the best possible shape and await the efforts of nature. For three weeks everything progressed favorably. There was now, however, an acute exacerbation, in connection with which, the lower part of the leg and the dorsum of the foot were mainly involved. This lasted about a week, and evidently grew out of an extension of the ostitis to the whole diaphysis of the tibia. As it subsided, it left the whole dorsum of the foot duskily discolored, and this soon sloughed. It was now obvious that amputation offered the only chance of life, but even this was impracticable under existing circumstances. A liberal diet, with anodynes, stimulants and tonics, continued a week, brought about a very fair general condition, when the operation was performed about the middle of the thigh. All the incidents of the operation were most pleasant. There was scarcely an appreciable loss of blood, or shock to the system. For about a week, the wound healed finely, and the patient's condition improved satisfactorily. At this time he was attacked with pain about the right pleura. Soon there was cough, and the symptoms of pneumonia, of which he died, thirteen days after the operation.

"The dissection was intensely interesting. The fibula had entirely

escaped. The shaft of the tibia was separated from both heads. The upper part of it had evidently perished at an earlier period than the lower, and it was already surrounded by a somewhat dense mass of lymph, perforated by large openings. This was evidently an embryonic substitute, with its cloacæ. The knee-joint was filled with pus, and its articular cartilage was extensively separated. There were sinuses extending even above the seat of the amputation. More than half the soft parts constituting the foot were found in a sloughing condition."

REPORT ON INFANTILE PATHOLOGY AND THERAPEUTICS.

By A. Jacobi, M.D., Prof. of Infantile Pathology and Therapeutics in the New York Medical College.

I. *Chronology and Geography of Epidemics of Croup and Diphtheria.* By Dr. August Hirsch. (Manual of Historico-Geographical Pathology, 2nd Vol., 1862.)

II. *Acute Fatty Degeneration of the New-Born.* By Dr. C. Hecker and Dr. L. Buhl. (Obstetrical Clinic, 1861.)

I. *Croup and Diphtheria.*—Dr. August Hirsch (Manual of Historico-Geographical Pathology, 2d vol., 1862,) denies the epidemic occurrence of croup in the literal meaning of the term. The same opinion has been expressed by Formey and Guersant, and Elliotson says: "Croup is sometimes epidemic; that is to say, a great number of children in particular seasons are affected by it." The majority of such "epidemics" coincided with the frequent occurrence of pulmonary catarrhs, and epidemics of whooping-cough. Autumn, winter, and spring were always the seasons in which croup was prominent, and according to numerous reports, the injurious atmospheric influences were shown by an unusually large number of catarrhal or inflammatory diseases of the respiratory organs. Moreover, many epidemics have been described as "croup" which were nothing else than diphtheria. As to diphtheria, the author is by no means of the number of those who assert the identity of croup and diphtheria. The only things common to both are: 1st, the diseased organ; 2d, the morphological character of the morbid process, viz., the fibrinous exudation; but even this identity is not a constant one, as there is diphtheria without affection of the larynx, and croup without membranous exudation. The differences the author lays stress on as conclusive are the following: Croup depends on climate, geographically, and on season and weather, individually; diphtheria is independent from either.

Croup is not seen as epidemic in the true meaning of the word; diphtheria is rarely seen otherwise than epidemical. Croup does not depend on social or hygienic influences; diphtheria, however, like other zymotic diseases, to a great extent on moistness of the soil, dirt, bad ventilation, crowded population, and all the causes of accumulation of noxious effluvia. Croup is a disease of the infantile age, and is rarely met with beyond the seventh year; diphtheria is observed at any age. Croup is a local disease; diphtheria a disease of the general system, with local deposits. Croup proves fatal by asphyxia, by either fibrinous exudation or occlusion of the glottis by reflex action; diphtheria more by general intoxication than by the local affection. Croup is not proved to be contagious; diphtheria is a contagious disease.

Diphtheria may, safely enough, be traced to ancient times. But before the sixteenth century there are no unimpeachable reports of epidemics, nor sufficiently distinct descriptions of the symptoms. Therefore the author excludes from his invaluable list of epidemics of diphtheria all the previous ones the nature of which may be considered doubtful. Having studied all the original sources, he has also excluded many which have, by other historians, been taken as diphtheria; thus from the last century the English reports of Grant, Fothergill, Huxham, Rowley, Levison, Bisset, Johnstone, etc.; the French, of Bouchet, Marteau, and Planchou; the Swiss, of Tissot; the North American, of Douglass and Colden, and the Swedish. The symptomatology of many of them being very indistinct, and that of others proving them to have been malignant scarlatina.

CHRONOLOGY OF EPIDEMICS OF CROUP AS FAR AS KNOWN.

Year.	Where Observed.	Season of Prevalence.	Author.
1728	York.	February.	Wintringham.
1758	Heilbronn.		Weber.
1761	Gottingue.	September.	Riepenhausen.
1798	Graefenthal.	Autumn and winter	Winckler.
1801	Hamburgh.	October, December.	Wigand.
1804	Altona.	Autumn and winter	Gutfeldt.
1804	Portsmouth, N. H.	October, December.	Spalding.
1805	Wurzburg.	Feb. and winter.	Horsch.
1807	Tübingen, etc., (Würtemberg.)	Spring and autumn.	Autenrieth, Eschenmayer.
1807–8	Ratzeburg.	December, April.	Wächter.
1807–8	Vienna.	December, March.	Friedländer, Goelis.
1809–10	Edinburgh.	December, June.	Robertson.
1810	Plainfield, Mass.	June.	Porter.
1811	Waida.	March and April.	Kühn.

Year.	Where Observed.	Season of Prevalence.	Author.
1812	Baireuth.	January, February.	Sackenreuter.
1822	Engelholm, (Sweden.)	Spring and autumn.	Report in Swensk. Läk. Sällsk.
1823	Philipstad, Strömstad, (Sweden.)	Winter and spring.	"
1823	Malmö Län.	Autumn.	"
1823	Copenhague.	March.	Bang.
1824	Salzburg.	Nov., December.	Aberle.
1834	Tuttlingen.	January, April.	Heyfelder.
1835	Wadovice.	Spring.	Rohrer.
1835	Rhenish Prussia.	Spring.	Rhein. Sanitätsber., 1835.
1835	Sigmaringue.	April, September.	Heyfelder.
1836–37	Schwenningue.	November, May.	Rösch.
1837	Zurich.	Winter and spring.	Special Report.
1839	Veile, (Denmark.)	Spring and autumn.	Bibl. for Läger., 1841.
1840	Voigtsberg, (Saxonia.)	Autumn.	Special Report.
1842	Eastern Prussia.	Winter.	Lietzan.
1844	Gemünd.	Jan., February.	Rhenish Special Reports.
1844	Denmark.	Spring.	Sundhetskoll. Forhandl., 1845.
1844–45	Greifswald, (Pomerania.)	Winter and spring.	Stubenrauch.
1845	Rhenish Prussia.	January, March.	Rhenish Special Reports.

CHRONOLOGY OF EPIDEMICS OF DIPHTHERIA.

Year.	Country.	District.	Author.
1583	Spain.	Sevilla.	Nunnez.
1585	"	All Andalusia.	Herrera.
1587–90	"	Sevilla and neighborhood.	Villalba.
1590–91	"	All Andalusia.	Villareal.
1596	"	Granada: first city, afterwards kingdom.	Villalba.
1600 sq.	"	All Estremadura.	Nunnez.
1603 sq.	"	All New Castilia.	Cascales.
1610–18	"	All Spain.	Mercado, Herrera, de San Millan, de Soto, Meneses, Sola, Tamayo, de la Pera, Charta imperialis, de Heredia, Tontecha.
1610	Italy.	Naples, (called male in Canna.)	Nola.

1618–30	Italy.	Naples first, afterwards all Southern Italy and Holy See.	Foglia, Sgambati, Carnevale, Bartholino, Ueto, Buonocore, Severino.
1620 sq.	Sicily, Sardinia, Malba.	Until 1630.	Alaimo, Prosini, Cortes.
1630	Spain.	Saragossa and other places of Andalusia.	Gil de Pina, Zacutus Lucitanus.
1650	Italy.	Latium.	Panaroli.
1666	Spain.	Toledo and many other places.	Vasquez.
1701	Ionian Is'ds	Especially on Milo.	Tournefort.
1736–37	France.	Rouen, (doubtful report.)	Le Cat.
1744–48	England.	Liskard, and other places of Cornwallis.	Starr.
1745–46	Netherlands	Dalham, (Prov. of Luttich.)	Zaff.
1745	France.	Paris, (in College de Louis le Grand.)	Astruc.
1746	"	All Paris.	Malouin, Bouillaud, Chomel.
1747	"	All Paris, 1, and Orleans, 2.	1. Malouin. 2. Du Hamel.
1747	Italy.	Cremona, and the whole province.	Ghisi
1748	France.	Paris 1, Lille 2, Rouen 3, Chalons s. M. 4. Sporadic cases already, 1745–47, in Rouen.	1, Malouin; Bouillaud, Chomel, 2. Boucher, 3. Le Cat, 4. Navier.
1748–50	"	Guyenne, all over the province.	Rolin.
1749	Portugal.	Lisbon.	Barbosa.
1750 sq.	Spain.	New Castilia 1, and Galicia 2.	1, Villalba; 2, Thiéry.
1752	Germany.	Harz Mountain.	Hertzog.
1752	Switzerland.	Simmenthal, in Berne.	Langhans.
1752	N. America.	New York, (numerous.)	Middleton.
1754	Holland.	Rotterdam and Dordrecht.	Stocke.
1755	Sweden.	All over the country.	Berg.
1755	Germany.	Rampitz, near Frankfort-on-the-Oder.	Von Bergen.
1757	Sweden.	Stockholm.	Berg.
1761–62	"	Upsala and neighborhood 1, Colmer, etc., 2.	1, Wilcke; 2, Wahlbom.
1764–71	Spain.	P. has seen 300 cases in Valencia.	Pasqual.
1769–70	Holland.	Utrecht.	Keetel.
1771–72	N. America.	New York.	Bard.
1774	France.	Forges, Lissing, etc., in Normandy.	Lepecq.

1775	N. America.	New England.	Webster.
1780	West Indies.	Jamaica, (very numerous.)	Moseley.
1786	Portugal.	Lisbon.	Barbosa.
1786	Germany.	Istria.	Panzani.
1787	France.	Poitiers.	Lamarque.
1790	England.	London, (very numerous.)	Denman.
1793	"	Chesham and neighboring mountains.	Rumsey.
1799	N. America.	Washington, Va., (George Washington.)	Caldwell.
1801	Germany.	Eastern Prussia 1, Marienwerder 2.	1, Elsner. 2, Maercker.
1809	N. America.	Philadelphia.	Caldwell.
1818 sq.	France.	Tours 1, Paris 2; Gordon, Dep. Lot, 3.	1, Bretonneau. 2, Ribes. 3, Desyenettes.
1819	Scotland.	Glasgow, (since 1812.)	Mackenzie.
1820	France.	Nantes.	Prion.
1821	Peru.	Extensively, for the first time.	Odriozola.
1822	France.	Arras and neighborhood.	Arch. Génér., VII.
1823–24	Italy.	Veltlin.	Balardini.
1824	France.	Eure et Loire 1; La Ferrière, near Tours, 2.	1, Girouard. 2, Bretonneau.
1824	Norway.	Aggerhuus.	Munck.
1824	St. Helene.		Ritchie.
1825	France.	Nantes 1, Dep. Maine et Loire 2, Touraine 3, Vendôme 4.	1, Prion; 2, Ouvrard; 3, Menon, Bretonneau; 4, Gendron.
1825	Scotland.	Kelso, Co. of Roxburgh.	Robertson.
1826	France.	Vendôme 1, Dep. Seine et Marne 2, Indre et Loire 3, Haut-Vienne 4; Villandry, in Touraine, 5.	1, Gendron; 2, Ferrand; 3, Guinnier; 4, Mazard; 5, Bretonneau.
1826	Switzerland.	Waadt.	Baud.
1826	N. America.	New York.	Belden.
1827	France.	Dep. Loiret 1, Sologne 2, Orne 3, Seine 4.	1, Ranque, Lepage. 2, Ranque; 3, Bianquin; 4, Bourgeois.
1828	France.	Dep. Orne, 1; Loire et Cher, Indre et Loire, Loiret, 2.	1, Emangard. 2, Report.
1828	N. America.	Danville, Ky.	Smith.
1829	France.	La Flèche, (military school,) 1; Ortins, Dep. Loire et Cher.	1, Lespine. 2, Gendron.
1830	N. America.	Northumberland, Pa.	Jackson.

1833	France.	Dep. Mayence, 1; Indre et Loire, 2.	1, Lemercier. 2, Bridel.
1835–36	Ireland.	Dublin.	Bewley.
1836	East Indies.	Suburb of Calcutta.	Jackson.
1836	N. America.	New Archangel.	Blaschke.
1836	Peru.	Jauga.	Tschudi.
1839	France.	Behaupal, Dep. Vosges.	George.
1839	Isle de Bourbon.		Dussac.
1840	France.	Paris.	Becquerel, Boudet.
1841 sq.	"	Autun, and Dep. Nièvre.	Daviot.
1844	Italy.	Castelpetroso, in Naples.	Ferrara.
1844	N. America.	Salem., N. J., and neighborhood.	Gibbon.
1845	"	Philadelphia.	Meigs.
1845	Italy.	Vasto, in Naples.	Barbarotta.
1845	Norway.	District of Drontheim, (also 1846 and '47.)	Roll.
1846	France.	Paris, (numerous.)	Vauthier.
1846	Denmark.	Logstör.	Beck.
1846	Norway.	Drontheim 1, Christiania 2.	1, Roll; 2, Rabe.
1847	Germany.	Hadamar, in Nassau.	Santlus.
1847	France.	Paris.	Vauthier.
1847	Norway.	Drontheim 1, Lavanger and Skoge 2, Namdal 3.	1, Roll. 2, Ditrichsen. 3, Iehe.
1847	Denmark.	Almost all over the country.	Sundhedskoll. Forhandl., 1847.
1847 sq.	N. America.	Western States, along the Mississippi, 1; Ohio, (Sarahsvile, Morgan County, 1849, Cos. of Monroe and Guernsey,) 2.	1, Beck; 2, Welsh.
1848	France.	Paris, in Hospital Necker.	Empis.
1848	Denmark.	Extensively, especially in the district of Kronborg.	Sundhedskoll., 1848.
1848	N. America.	Philadelphia.	Meigs.
1849	Germany.	Koenigsberg.	Bohn.
1849	Denmark.	Seeland, Tyen, Aarhuus.	Sundhetskoll. Verhandl. for Aaret, 1850.
1849	England.	Haverfordwest, Wales.	Brown.
1850	Germany.	Koenigsberg.	Bohn.
1850	France.	Aigle, in Dep. Orne, 1; Verdun, Dep. Mense, 2.	1, Mazier. 2, Neucourt.
1850	Denmark.	Seeland, Lolland, Tyen, Rybe, Aarhuus, Aalberg.	Sundhestkoll. Verhandl. for Aaret, 1851.
1851	Germany.	Koenigsberg.	Bohn.
1851	France.	Vitry, Dep. Morne.	Valentin.

1852	France.	Dep. Marne, 1; Pas de Calais, Marne, Lot et Garonne, 2.	1, Valentin; 2, Gaultier de Thaubry.
1852	Sweden.	Christianhamn, Arboga, Helsingborg.	Sundhestkoll.* Forhandl. for Aaret, 1852.
1853	France.	Dep. Aisne, Valenciennes, 1; Avignon, 2.	1, Gaultier. 2, Lespiau.
1853	Germany.	Hadamar, Nassau.	Santlus.
1853	England.	Kent and Essex.	Radcliffe.
1853	Sweden.	Helsingborg, Mariafred, etc.	Sundhestkoll. Forhandl. for Aaret, 1853.
1854	England.	Kent and Essex.	Radcliffe.
1854	Switzerland.	Zurich.	Wäckerling.
1855	Netherlands	Amsterdam.	Von Capelle.
1855	Sweden.	Haparanda and Helsingborg.	Mediz. Zeit. Russlands, 1860. Wistrands.
1855	Turkey.	French Army.	Haspel.
1855–56	France.	Paris 1, Boulogne 2, and other districts 3.	1, Trousseau, Oulmont, Isambert, Gubler, Fiéve, *Bull. Thérap.*, 1855. 2, Bayen. 3, Bouillon, Lagrange.
1856	Netherlands	Amsterdam.	Von Capelle.
1856	Germany.	Koenigsberg.	Olshausen, Bohn.
1856	Sweden.	Extensively.	Wistrand, 1857.
1856	England.	Birmingham, 1; Launceston, Cornwallis, 2.	1, Heslop; 2, Thomson.
1856 sq.	N. America.	California, Upper; Sacramento Valley.	Gibbons, Fourgeaud, Blake, Whitney.
1856	Peru.	Peura, Truxillo, Hadcho, Lima.	
1857	Portugal.	Extensively.	Odriozola.
1857	France.	Haute-Marne, 1; Marvais, near Poitiers, 2; Loire Inférieure, 3.	1, Forgeot; 2, Bonnet; 3, Journ. f. Kinderk., 1861.
1857	Netherlands	Amsterdam.	Von Capelle.
1857	Germany.	Koenigsberg, Munich.	Hauner.
1857	England.	East, Southeast, and Southwest, 1; Kent, 2, 3; Sussex, Essex, 4, 5; Surrey, 6; Wiltshire, 7; Suffolk, Lincoln, 8; Staffordshire, Cornwallis, Devon.	1, Hart, Hillier; 2, Rigder; 3, Smith; 4, Stiles; 5, Brydon; 6, Bottomley; 7, Jennings; 8, McKinder.
1857	N. America.	Albany, N. Y.; California.	Willard.

1857	Brazils.	English ship in the port at Rio.	Makay.
1858	Russia.	All over Curland.	Med. Zeitg. Russlands, 1859.
1858	Germany.	Koenigsberg, Munich, Central Franconia.	Hauner.
1858	France.	Dep. Yonne, 1; Charente Inférieure.	1, Duche; 2, Robert.
1858	England.	Almost everywhere: 1, Kent, 2, Sussex, Hampshire, Surrey, Berkshire, Middlesex; 3, Essex, Hartfordshire; 4, Bedford, Northampton, Huntingdon, Cambridge, Suffolk, Norfolk, Dorset, Wiltshire, Somerset; 5, Cornwallis, Worcester, Warwick, Stafford, Shropshire, Derby, Chester, Nottingham, Lincoln, 6; 7, Lancashire, Yorkshire.	1, Hart. 2, Monkton. 3, Ballard. 4, Sanderson. 5, M'Donald. 6, Gross. 7, Ellis.
1858	N. America.	Sussex Co., N. J., 1; Milford, Orange, Conn., 2; New York, 3; Richmond, Wayne, New Castle, Ind., 4; California.	1, Ryerson. 2, Beardsley. 3, Jacobi. 4, Brower.
1858	Peru.	Like 1856 and 1857.	Odriozola.
1859	Russia.	Moscow.	Kronenberg.
1859	France.	Paris, 1; Bayonne, 2.	1, Guersant, Moynier; 2, Silva.
1859	Netherlands	Many districts, 1. Gronengin, 2; Bedum, 3; Friesland, Zuid Holland, 4; Gelderland.	1, Ali Cohen, Loncq; 2, De la Faille, Reilingh; 3, Ali Cohen; 4, Werner.
1859	England.	Kent, Sussex, Berkshire, 1; Essex, Sussex, Norfolk, Somerset, Stafford, Derby, 2; Nottingham, Lincoln, Lancashire, Yorkshire, Westmoreland, Wales.	1, *Lancet*, 1859; 2, Crighton.
1859	N. America.	New York, 1; Philadelphia, 2; Indiana, Mississippi, at Sardis, and generally between the Mississippi and Tallahatchie, 3.	1, Jacobi; 2, Jewell; 3, Williamson.

1860	Netherlands	Like 1859. 1, Gelderland; 2, Zuid Holland and Hague; 3, Friesland, N. Brabant.	1, Ali Cohen; 2, Donders; 3, Neederl. Tijdschr. for Geneeskunde IV.
1860	N. America.	New York, like 1858 and 1859. Tompkins, Westchester, Rockland Co's, 1; Philadelphia, 2; Oakland College, Miss.	1, *American Medical Times*, 1861, Jan.; 2, Keller, Read; 3, Goldsmith.

II. *Acute Fatty Degeneration of the New-Born.*—Drs. C. Hecker and L. Buhl (*Obstetrical Clinic*, 1861,) describe under this name a large number of highly interesting anomalies in the body of the newly-born. They are usually observed in well-developed infants; a majority of whom are born in an asphyctic condition. Beside some diarrhœic liquids, they soon evacuate blood through the anus, or bring it up from the stomach; become icteric after three or six days, and are frequently attacked with an irrepressible hæmorrhage from the umbilicus. This umbilical hæmorrhage, according to Grandidier's statistical researches, generally takes place on the fifth day. Besides, there are other hæmorrhages; extravasations being found in the conjunctiva, mucous membrane of the mouth and nose, in the external ear, the mucous membrane of the uterus, and, as purpura, in the cutis. This affection is sometimes accompanied with anasarca. Many of the infants perish with the symptoms of cyanosis, within a very few hours; very few survive the second week; the longer they live, however, the more they suffer from anæmia and jaundice. According to Grandidier, the rate of deaths among the infants affected with umbilical hæmorrhage was 83.5 per cent. Nevertheless, there is neither proof of any supervening or congenital infection, nor the symptoms of umbilical phlebitis. All these symptoms, however, were considered as of an obscure and singular character. For there was no anomaly in the brain or its membranes, no congenital disease of the heart or respiratory organs by which cyanosis and asphyxia could be explained; there was no obstruction in the biliary ducts to account for the jaundice, nor a morbid change in the umbilical vessels to explain the hæmorrhage. Now, Grandidier has proved already that umbilical hæmorrhages have no connection with hæmophilia, for hereditary transmission is a well-known fact in regard to the latter, while it does not exist in the former, and hæmophilia destroys twelve times as many males as females, while but twice the number of males, in proportion to that of females, die of umbilical hæmorrhage. Moreover, in hæmophilic pa

tients, only three per cent. were affected with umbilical hæmorrhage. Therefore, the explanation was sought for in some dissolution of the blood, which was the more readily assumed to be the cause of all the above-mentioned troubles, the more frequently the blood contained in the heart and all the blood-vessels was found uncoagulated and of a livid color.

In all the cases examined by the authors, they found, besides the either cyanotic or icteric color, (with or without anasarca,) and the above-mentioned condition of the umbilicus and the umbilical vessels, and of the blood, the following anomalies;

Extravasations were not only found on the surface, but also in a large number of internal organs, cerebral membranes, pulmonary and costal pleura, connective tissue of mediastinum, thymus, pericardium, peritoneum, omentum; the majority of mucous membranes and muscles. They vary from the size of the head of a pin to that of a pea, or larger. The brain was soft, and unless anæmic from constant hæmorrhages, hyperæmic, and of a livid, or when there was icterus, of a yellowish color. The lungs, in the majority of cases, contained more or less voluminous apoplectic spots, and therefore the bronchi exhibited blood or bloody (brown or yellow) mucus. Besides, there was, to some extent, pulmonary œdema, and the microscopical examination revealed fat-globules in the epithelial cells, and the presence of a large number of myeline corpuscles. Endo- and pericardium exhibited a large number of punctate extravasations; in recent cases the heart-muscle was rigid and of a dark-red color; in older cases, softer and paler; always, however, more fragile; moreover, in proportion to the degree of cyanosis, the examination proved fatty degeneration to have taken place in many, most, or almost all the primitive muscular fibres. The endocardium and the inner membrane of the blood-vessels was livid in cyanosis, yellow in icterus. The liver was also more fragile, hyperæmic, and of normal size and shape in recent cases; anæmic and icteric, enlarged, and with less sharp margins in older ones. The cells of the liver, according to the case, were always found more or less filled with fat-globules, and the coloring matter of bile. Spleen enlarged, and very soft. The walls of stomach and intestines were thickened and swelled by serum; there was blood in the stomach and small intestines; sometimes down to the ileo-cœcal valve and the colon; and moreover, masses of pale, water-like, or bile-colored liquids and epithelium. The intestine, and especially the small intestines and villi, looked infiltrated; the latter contained fat-globules. The kidneys, unless the patient died on the first day, or lived a considerable

time, always showed a copious infarction of uric acid; extravasations were found in the mucous membranes of the renal pelvis, ureter, and urinary bladder; even in the tissue of the kidneys itself. The papillæ, and also the cortical substance, were swelled; either hyperæmic or anæmic, according to the duration of the case; in older cases, the canals contained not only urate of ammonia, but also biliary pigment. The epithelia of the Bellinian canals had undergone complete fatty degeneration, the contents of the cells consisting of nothing but fat-globules.

Thus all the local anomalies appear to be but part of a general disorder in the nutrition of the system, which is evidently congenital, and the origin of which dates from the last days of utero-gestation; it is very acute, and shows itself especially in the heart, liver, and kidneys; less in the stomach and intestines, by the acute transformation of the cellular contents into fat, and some albuminate. That is to say, it is the second stage of parenchymatous inflammation, viz., acute fatty degeneration. Therefore, asphyxia and cyanosis, unexplained hitherto, take their origin from the pulmonary affection depending on the inflammation of the heart. Cyanosis, further, is the cause of the peculiar livid color of the liquid blood and the brain. Jaundice, also unexplained hitherto, depends in many cases on the affection of the liver, which here, connected with the other anomalies in the kidneys, stomach and intestines, and heart-muscle, bears the greatest similarity to acute atrophy of the liver. The fatty degeneration of the kidneys may be taken as the cause of anasarca, which has been observed occasionally. The hæmorrhages from the intestines and stomach, and umbilicus, are readily explained by cyanosis liquefying the blood; by acute icterus; acute Bright's disease; by inflammation of the heart, retarding the circulation; and by the more than probable presence of anomalies in both general nutrition and the condition of the small blood-vessels. Death results from hæmorrhage, the change in the condition of the blood, and the general deficiency in nutrition. Something similar to this disease is found in adults, in whom sometimes myocarditis with either pulmonary œdema or apoplexy, or Bright's disease with anasarca and albuminuria, or jaundice depending on acute atrophy of the liver with intestinal affections, and especially hæmorrhages, appear most prominent.

Report of a Committee of the Associate Medical Members of the Sanitary Commission on the Subject of Pneumonia.

Of the diseases which the Army Surgeon must expect to encounter in the present unhappy contest, pneumonia is one of the most important. This disease has already prevailed to a considerable extent among the troops on the Potomac and in the West; but it will, doubtless, prevail to a much greater extent during the months of winter and spring. It prevails habitually much more among the inhabitants of the Middle and Southern States than at the North. It will be more likely to occur among Northern soldiers in a Southern climate than among native or acclimated residents. Statistics show that it occurs much oftener among those who are exposed to the vicissitudes of the weather than among those whose occupations involve confinement within doors; hence, it may be expected to prevail especially among troops in active service. Not only the prevalence, but the gravity, of this disease is greater in the Middle and Southern than in the Northern States. A larger ratio of deaths in the former than in the latter is to be expected. In sections in which the periodical fevers are rife, pneumonia is apt to be extremely fatal. This is the uniform testimony of physicians practicing in malarious regions, especially at the South.

These considerations show sufficiently the importance of the subject of pneumonia, at this time, to the Army Surgeon. But others may be added. Not only has pneumonia been studied, within the last few years, with diligence and success, as regards its morbid anatomy, symptomatic phenomena, pathological character and laws, but, perhaps, on no other important inflammatory affection has clinical observation been brought to bear so fully and efficiently as regards the management. In the first place, abundant facts have been collected respecting its course when uninfluenced by active medication—the true point of departure for the satisfactory study of therapeutics, as applied to any disease. And, in the second place, data have been afforded for judging of the value of different methods of treatment. As a consequence, a considerable change has taken place in the opinions and practice of not a few members of the medical profession with respect to the management of pneumonia. Therapeutical measures, which, but a few years ago, were generally regarded as essential to its successful treatment, are now by many deemed often needless and hurtful. On the other hand, measures formerly considered to be uncalled for and hazardous, are now thought to be highly important in certain cases. Believing that, after making due allowance for a tendency to pass to opposite extremes, which characterizes the fluctuations of medical doctrines, a real and truly important progress has been made of late in practical views respecting this disease, it is not unreasonable to suppose that, of those who have been called by the present contest from civil to military practice, some may not have given much attention to the subject, and, therefore, adhere to views which, with our present knowledge, are not tenable. Many of the medical officers of

the army have seen but little of the disease in comparison with the opportunities for observation which will now be opened in their new sphere of action. Moreover, most of those who are entering upon military experience have seen but little of pneumonia as it will be presented to them in soldiers occupying the Middle and Southern States. These last-mentioned considerations, doubtless, have been in the minds of the members of the Sanitary Commission, at whose instance this report is submitted.

It is hardly necessary to say that the discussion of questions relating, directly or indirectly, to the management of pneumonia, would be here out of place. The purpose of this report is to premise a few propositions, embodying certain pathological facts, having obvious relations to the management of the disease; and, then, with reference to the leading indications for treatment, and the employment of different therapeutical measures, to present, as concisely and compactly as possible, the practical views which appear to the Committee to be most consistent with our present knowledge of the disease, and with the results of clinical experience.

1. Ordinary pneumonia, uncomplicated, and not extending over more than a single lobe, does not, *per se*, involve much, if any, danger to life. The truth of this statement has been shown by large collections of cases in which the disease has been allowed to pursue its course without medical treatment, or with only palliative remedies. A fatal termination, therefore, in such cases, must depend on circumstances incidental to the disease, or on injudicious interference. It is obvious that, when active measures of treatment are indicated in such cases, the indications are derived from the incidental circumstances more than from the disease itself.

2. The disease is much more grave, and becomes dangerous to life, when it invades more than a lobe, affecting an entire lung, or, more rarely, portions of both lungs, (double pneumonia.) The greater proportion of these cases is one of the reasons of the greater fatality of pneumonia at the South. In many of these cases, however, recovery takes place, and the symptoms do not always denote great gravity or danger. A source of gravity in these cases, to which attention has not been sufficiently directed, is the large amount of exudation-matter deposited in the lungs. In fatal cases, in which an entire lung is solidified, the increased weight of the affected lung, due to the solidifying deposit, may be as high as four pounds. This large quantity of matter is, of course, withdrawn from the solid constituents of the blood.*

3. The complications of pneumonia account for the danger to life in certain cases. One of the most serious complications is pericarditis. This occurs oftener at the South than at the North. This complication does not render the termination necessarily fatal. Patients may recover, even when, in addition to this complication, an entire

* See Clinical Lecture, *New Orleans Medical Times*, March, 1861, and the *New York Medical Times*.

lung is involved. A degree of pleurisy exceeding that generally coexisting with pneumonia, and attended by considerable effusion, (which is rare,) accounts for the danger in some cases. It may be remarked here, that the coexisting pleurisy is the source of acute pain in pneumonia. Pneumonia, without pleurisy, is attended with little or no pain. Intermitting fever and pneumonia may be associated—each affection serving to mask, to a greater or less extent, the other. This complication is attended with great danger, and calls for prompt and efficient measures of treatment addressed to the intermitting fever. In the intemperate, delirium tremens is apt to become developed, and prove a serious complication, claiming efficient treatment. Cholæmia, or jaundice, is occasionally an incidental event in pneumonia. It does not, however, denote an important hepatic complication, and does not call for active remedies designed to act upon the liver. The propriety of recognizing "bilious pneumonia" as a variety of the disease may fairly be questioned.

4. Pneumonia occurs as a complication, or secondary affection, in the course of other diseases. Its occurrence in rubeola is not unfrequent. It is apt to occur in the continued fevers, typhus and typhoid. It adds much to the danger in these diseases. An important distinction is involved in typhus or typhoid fever, complicated with pneumonia, as compared with the so-called typhoid pneumonia. In the one case, the primary disease is the continued fever, the pneumonia being developed secondarily; in the other case, the pneumonia is the primary disease, certain symptoms becoming developed which denote what is commonly known as the typhoid condition.

5. The general and local symptoms accompanying pneumonia, when primary and uncomplicated, differ widely in different cases, and in these differences have originated certain varieties of the disease generally recognized by authors. When accompanied by high febrile movement—a full, hard pulse, and a hot skin—it has been called sthenic and frank pneumonia. Examples of this variety are oftenest seen in young, robust subjects, residing in healthy rural situations. When, on the other hand, the phenomena belonging to symptomatic fever are not present in a marked degree, the pulse and skin denoting diminished power of the circulation, the disease is said to be asthenic. In each of these varieties the local affection, so far as it can be appreciated by the physical signs during life, or by examination after death, may be the same. It is an expression of a well-known pathological fact, applicable alike to this and other inflammatory affections, to say that, with a similar amount of inflammation, different cases differ extremely as regards the disturbance of the system. The system appears to tolerate differently the same affection in different cases. And it is obvious that the management must have reference to the condition of the system quite as much as, if not, indeed, much more than, to the local affection. In cases presenting passive delirium and adynamia, the disease is called typhoid pneumonia. Here, too, the gravity and danger relate not so much to the local affection as to the general condition; and here, also, the treatment is to be governed

more by the general symptoms than by the degree or extent of the inflammation.

6. The rapidity with which the exudation takes place in pneumonia, sufficiently to solidify the affected portion of lung, is of importance with reference to treatment. Different cases differ in this regard; but it is not unusual to find the physical signs of complete or considerable solidification (bronchial respiration and bronchophony) within twenty-four hours after the date of the attack, and frequently this occurs in the course of forty-eight hours. Hence, were it possible to prevent this result, it must be by therapeutical measures which act with a promptness commensurate with the rapidity of the exudation.

7. Other important facts relate to the removal of the exudation. It is removed chiefly, or exclusively, by absorption, not by expectoration. The source of the expectoration in pneumonia is mostly, if not entirely, from coexisting circumscribed bronchitis. This fact has an obvious bearing on the use of remedies called expectorants, or, on the other hand, on the use of remedies which are supposed to interfere with expectoration. It is well known that pneumonia may be completely latent so far as cough and expectoration are concerned. The removal of the exudation may go on with great rapidity, even when no active measures of treatment are employed. In this respect cases differ greatly. It is certain that, before the natural course of this disease had been observed, the more or less rapid disappearance of solidification, occurring naturally, was often attributed to remedies supposed to act as sorbefacients. The complete removal of the exudation, in favorable cases, leaving the pulmonary structure intact, is an important as well as highly interesting fact. The tendency to run into a chronic form, as is well known, does not belong to this disease. It is rare for it to eventuate in the third stage, or the stage of purulent infiltration, even in fatal cases. Abscess and gangrene are also results extremely infrequent. With a few exceptions, it may be said that resolution of the affected lung is sure to take place if the life of the patient be sufficiently prolonged. This fact has a very important bearing on the indications for treatment.

8 In the majority of the cases in which pneumonia proves fatal, the mode of dying is by asthenia, rather than by apnœa. The patient rarely dies in consequence of the extent to which the respiratory function is compromised. It is not unusual to observe complete solidification of an entire lung with very little embarrassment of breathing. The fatal termination is much oftener due to failure of the powers of life. This is true of the different varieties of the disease, and of cases in which the disease is complicated or uncomplicated.

The indications for treatment in cases of pneumonia must have regard to the stage of the disease. When patients are seen in the first stage, *i. e.*, prior to solidification of the affected lobe, important objects of treatment, if attainable, doubtless are the limitation of the inflammation, the prevention of exudation, and the restriction of the local affection to the lobe first invaded—in other words, the arrest of

the disease. Are these objects attainable? With our present knowledge, this question resolves itself into another, viz.: Will the antiphlogistic method of treatment, so called, of which blood-letting is the most prominent measure, control the disease? Clinical experience certainly warrants the assertion that this method of treatment cannot be relied upon for effecting the objects just named. If this method ever succeeds in arresting pneumonia, the chance of success in any case is too small to justify its employment whenever it comes into conflict with other indications, or, in other words, whenever it will be likely to do harm if it do not succeed. Abortive measures, other than those commonly known as antiphlogistic, do not require notice, and, indeed, there are none, at the present moment, before the profession.

Putting aside arrest of the disease as an object of treatment in the first stage, the inquiry arises, May not active measures, in this stage, so influence the disease as to diminish its intensity, and thereby the danger, aiding the patient to pass through it more safely and comfortably, if not more quickly, than if the measures were not employed; and will not blood-letting conduce to these desirable ends? A candid review of the discussions which have taken place within the last few years respecting blood-letting in pneumonia, together with the results of clinical experience, can hardly fail to lead to the conviction that, employed indiscriminately, it will do much more harm than good. This, it must be admitted, may be true, and yet blood-letting be useful in certain cases. Its usefulness is limited to cases characterized by high febrile movement, the patients being robust or of a full habit, and, of course, the disease not advanced to the second stage, when a pound or more of solid matter has been withdrawn from the blood to constitute the solidifying deposit. The abstraction of blood, if the pulse be strong, the skin hot, and the pain severe, with more or less dyspnœa, will undoubtedly afford relief, and sometimes, perhaps, place the patient in a better condition than if no active treatment had been resorted to. But even in the cases to which blood-letting is to be restricted, if employed at all, may not other measures be substituted which will accomplish the same ends, without the spoliative effects of that remedy? We think this question may generally be answered in the affirmative. Blood-letting in these cases is not so much a curative as a palliative remedy. It is addressed, not directly to the local affection, but to the symptomatic febrile movement, and can only influence the local affection indirectly in so far as the latter is intensified by the former. Now, the febrile movement may be not less efficiently restrained by saline purgatives and by the nauseant and arterial sedatives, of which antimony and the veratrum viride may be named as the most reliable. The salines deplete without the loss of the blood-corpuscles, or spoliation, and the sedative remedies diminish the frequency and force of the heart's action. These remedies, then, may take the place of blood-letting certainly in the great majority of the cases in which this measure would be admissible if substitutes were not to be found.

Antimonial preparations and the veratrum viride are potent remedies which are only to be employed to meet certain indications. They may do much harm if injudiciously or indiscriminately employed. They are indicated in cases in which the pneumonia is said to be frank or sthenic. They are to be given with great circumspection when, from the previous health, the constitution of the patient, or other circumstances, danger is to be anticipated from failure of the vital powers. They are never to be carried to the extent of producing marked depressing effects. The benefit to be obtained from them can be secured without these effects. They are not given to influence the loal affection directly, but only through their action upon the circulation. They are imperatively contra-indicated whenever the action of the heart, as represented by the strength of the pulse, denotes a tendency to failure of the powers of life. Given, or persisted in, under these circumstances, they will contribute to the danger of death by asthenia.

Relief of the acute pleuritic pain which belongs, in some cases, to the first stage of pneumonia, is an object of treatment. Restraining the movements of the affected side, pain induces fatigue, from the increased frequency of the respirations, and conduces to suffering from dyspnœa. Local measures will do much towards this object. A considerable number of dry cups is an efficient measure. Wet cupping should be limited to cases in which the loss of the blood abstracted by this mode will be well borne.

Stupes with water only, or with some stimulating application, such as the spirits of turpentine, often afford marked relief. The oiled muslin jacket contributes to comfort by keeping the surface of the chest moistened with perspiration, and, if a flannel covering be added, all the advantages of a poultice, or the water-dressing, are secured. It is hardly necessary to say that blisters are inadmissible, certainly in this stage. There need be no reluctance in prescribing opium in this stage, for the relief of pain. The value of opium for other objects will claim attention presently.

If the phenomena of intermittent fever are developed, quinia should be given promptly and in efficient doses. The paroxysms should be arrested as speedily as possible. The patient may be placed in great danger by their repetition. The existence of the pneumonia and the degree of symptomatic febrile movement in no wise conflict with this important indication; indeed, so far from conflicting with it, the sedative influence of full doses of quinia may be useful, aside from the arrest of the paroxysms. In a malarious region, or if the patient have been subject to attacks of intermittent fever, it is judicious to forestall the possible development of the latter affection by moderate doses of quinia. It is a good rule, in such cases, to commence at once with the use of this remedy, irrespective of the liability to the occurrence of intermittent paroxysms. The malarious cachexia impairs the power of resisting the disease; hence its greater fatality in malarious regions, even when uncomplicated with intermitting fever.

(To be concluded in our next.)

REVIEWS AND BIBLIOGRAPHY.

Notes on the Surgery of the War in the Crimea, with Remarks on the Treatment of Gunshot Wounds. By GEORGE H. B. MACLEOD, M.D., F.R.C.S., Surgeon to the General Hospital in Camp before Sebastopol, etc. Philadelphia: J. B. Lippincott & Co. 1862.

Campagne d'Italie de 1859. *Lettres Médico-chirurgicales, écrites du Grand Quartier Général de l'Armée.* Par le Docteur A. BERTHERAND, Médicin Principal de Première Classe, etc., etc. Paris, chez J. B. Baillière et Victor Masson. 1860.

(The Italian Campaign of 1859. Medico-Chirurgical Letters from General Head-Quarters. By Doctor A. BERTHERAND, Principal Medical Officer of the First Class, etc.)

The two last great wars of Europe give us, in these two little volumes, their results—as far, at least, as they have been elaborated—with regard to that subject which to-day most deeply interests every American surgeon, as it most deeply concerns every American soldier—the care of the wounded. After briefly glancing at the comparative as well as the absolute value of the two works, let us endeavor to draw from them a few practical deductions, which may be of service to any of us who are called upon to serve our country in the tented field, but under the tent of the ambulance; members of the more unobtrusive, but not less glorious or noble, army of non-combatants.

Both books are just what they claim to be. The English work consists of notes, annotations on the medical and surgical history of the war generally, worked out with a good deal of care, and at a sufficient period of time subsequent to the occurrences which they illustrate, to give a comprehensive view of the entire field which they cover. They are arranged methodically, beginning, somewhat unnecessarily, as far back as the days of the Argonauts, when the Crimea was peopled with "Gorgons and Hydras, and Chimeras dire," and giving its history, authentic and unauthentic. Its climate, geology, Flora, and Fauna, including the genus homo, are under review in an easy, pleasant style, and with special reference to the effect which, singly or combined, they might exert on an army of occupation. The following brief quotation will show the reader that the author is no professional plodder, without an eye to the natural beauties which at times surround him, (p. 26:)

"Autumn again was charming. The coolness of the mornings and evenings, the tempered heat of the mid-day sun, and the genial showers, rendered the climate delightful; while the beauties of sun

and shade, which played in such variegated richness over the broken mountains, and the brilliant sunsets, which lit up the many peaks with their purple splendor, and threw their golden shafts far over the shining surface of the calm sea, gave camp-life, at that season, a charm to which we had previously been entire strangers."

The order of the Letters from Italy, on the other hand, is simply chronological. Events are recorded just as they transpired; and while they contain much that is profitable, their chief charm lies in fresh, vivid pictures which they give of ambulance life. While reading them, one almost hears the groans of the wounded mingling with the cannon's roar, and sees the aisles of the old cathedrals paved with the thick-strewn beds of maimed and dying soldiers; while the flickering lanterns of the surgeons and nurses only serve to heighten the gloom of the vaulted roofs. We are hurried at once, without prelude or preface, to the field of battle, and Melegnano, Magenta, and bloody Solferino pass in rapid succession before our bewildered gaze, with their hecatombs of victims, and their crowded clinics.

We shall therefore conform our review of both to the order followed by the former, noticing briefly their points of unanimity and of disagreement.

There is nothing which so forcibly and painfully impresses the reader, in the preliminary part of Dr. Macleod's work, as his description of the fearful sufferings which the British troops endured from lack of food and clothing. Nothing in the history of our own campaign, even its earlier part, when so many thousand men were so hastily put in the field, can begin to compare with it; and no one, we think, can fail to be struck with the immense energy which has been displayed by our own Government, in equipping and feeding an army which numbers more than twice as many thousands as that of the English did hundreds, although at the outset our resources were so greatly inferior to theirs. The following picture is in strong contrast with that just given:

"Day after day passed in severe bodily exertion and anxious watching—one moment digging laboriously in extending the approaches, and the next with arms in hand repelling the assaulting enemy; almost always wet; exposed without cover to the drenching rain and soaking snow, the keen frost and biting wind; standing for days in wet mud; constantly either unnaturally excited or depressed; ever in danger, and without hope of a change; their dirty, humid clothes in rags—their bodies covered with loathsome vermin, which seemed to grow out of their very flesh; no comforts in their wind-pierced

tents on the bleak plateau; no fires, unless, weary and foot-sore as they were, they dug beneath the snow-covered sod for wet roots wherewith to kindle a feeble and tantalizing blaze; without food till, after hours of persevering exertion, they managed to half cook their unpalatable ration over their winking fire; huddled into a crowded tent, to pass the night in a close, noisome atmosphere, on the oozy ground—covered by the same blanket which protected them in the wet and muddy trenches; longing for the morning, though its early dawn was signaled by the bugle-sound, which called them to a renewal of that dread task whose severity made them yet again sigh, 'Would to God it were night!'"—(P. 41.)

The heart sickens at the picture. But it could not be dispensed with. Nothing else would have accounted for the fearful mortality of the siege.

Both of our authors bear cheerful testimony to the efficiency of female nurses, and the gratefulness of woman's tender care to the sick and wounded amid the discomforts of the camp.

"I believe that Miss Nightingale has decided the question," says Dr. Macleod; and Dr. Bertherand speaks with equal emphasis of the brave, unflinching devotion, and the indescribable consolations, of the volunteer nurses of Milan: those "auxiliary legions of pious devotion"—"guardian-angels of the soldiers' couch of pain."

The campaign in Bulgaria seems to have been the worst possible preparation for the work of the trenches. "Cholera, diarrhœa, dysentery, typhus and typhoid fevers, the results of exposure, irregular and deficient rationing, and the use of adulterated liquors, fearfully diminished and weakened the ranks, ere the army encamped before Sebastopol. Scurvy, too, was a most destructive agent, and that although a full supply of lime-juice was almost within reach, at Balaklava."

We are a little surprised to learn that "the majority of the recruits who joined the army early in 1855 were far from being well chosen, and that many of them were raw boys, ill conditioned, below the standard age, undeveloped in body, unconfirmed in constitution, and hence without stamina or powers of endurance." Notwithstanding the haste with which its legions have been gathered, we believe, indeed we know from personal inspection that, while there may be many instances similar to these in our own army, as a rule its ranks are composed of well-developed men, equal to any degree of muscular exertion.

With regard to the new conical balls now used, the author is con-

vinced that "the severity of the primary action on the part struck, and especially the aggravated evils which follow their wounds, combined to exercise a most prejudicial influence on the surgery of the war." "Immense comminution of bone," he adds, "has been their most prominent effect," while "the amount of laceration of the soft parts seems to depend on the distance at which the missile is fired." This destruction of the bone necessitates amputation, and hence increases the mortality.

Bertherand views the matter somewhat differently. After establishing it to his own satisfaction that the flight of these projectiles is endwise, he adds: "This fact leads me to regard as entirely too absolute the assertion of the increased relative severity of the wounds made by them, as compared with those produced by round balls." While he feels certain that they cause less laceration of the soft parts, he says with regard to bones," 1st. The point of conical projectiles striking the spongy portion of a bone has more chances of penetrating without splintering; the probabilities, on the other hand, are for a considerable number of large fragments, if it is a dense portion which is struck." The orifice of penetration is smaller, that of exit probably larger.

Macleod does not believe that "the conical ball, with its immense force of propulsion, could be split" upon a prominence of bone, as the round ball frequently is. Bertherand believes that they are about equally liable to it, and "to resolve all doubts upon the subject, most preciously preserves such a ball cut in two nearly equal halves, from the summit to the base, by the crest of the left tibia, on which he found it clasped."

Both agree in saying that a conical ball is not so likely to be turned from its course by a dense aponeurosis, as a round ball.

From the impressions produced upon the mind of the English surgeon, we think the inference must be drawn that the bullets of the Russians were heavier, and their arms of greater range, than those of the Austrians. On the greater difficulty of extracting the conical ball both are agreed, and Macleod insists, with much earnestness, upon the imperative necessity for removing all foreign bodies, but especially balls, immediately after the receipt of the injury.

Water dressings and irrigations are recommended in the French as well as the English work.

In speaking of the deceptive appearances often produced by gunshot wounds, Bertherand gives the following, which we think rather in advance of anything related by Macleod: "An officer presents

three wounds, placed one above another, in a line perpendicular to the fold of the left groin; two above Poupart's ligament, and one below. His own conviction is, that he received three shots. But we have no grave symptom pointing to abdominal lesion, nor can the finger or the sound penetrate that cavity, and yet the skin is extensively and deeply destroyed; these are no mere contusions. But Mr. X. is very fat; at the moment when the ball struck him he was bending forward. May not the projectile have perforated the base of a thick fold of abdominal integument before burying itself in the upper portion of the thigh? Placing him in the assumed posture, the orifices at once take their respective positions so exactly, that my forefinger penetrates them all at once with the greatest facility."

The two surgeons are unanimous in their estimate of the value of chloroform in military practice, and the perfect safety which attends its administration. Speaking of the operations after Solferino, Bertherand tells us that, "although administered indiscriminately in every operation, it did not give rise to the slightest accident." Macleod cites the testimony of Baudens, that the "French had no fatal accident to deplore from its use, although during the Eastern campaign it was employed thirty thousand times or more," and proves most conclusively that there was only one instance in which death was chargeable to its agency in the English army. The former author notices a striking contrast between the effects produced by the anæsthetic on the Austrians, depressed by defeat and fear, and the French, elated by victory; the one class succumbing instantly, as if struck by lightning, while the others were stimulated to the most violent muscular contractions. The latter "most conscientiously believes that its use in the army *directly saved very many lives.*" He also notices the somewhat singular fact, if it be one, as first observed by Deputy-Inspector-General Taylor, that "chloroform appears to act more efficiently when administered in the open air."

In considering the subject of hæmorrhage, the same author observes, with much justice, "that our language would gain greatly in precision if we divided it into three periods instead of two. 1st. *Primary*, occurring within twenty-four hours after the wound, and the result of the mechanical lesion. 2d. *Intermediary*, occurring from twenty-four hours to ten days after, and due to sloughing. 3d. *Secondary*, properly so called, occurring after the tenth day, and the result of a morbid ulcerative process."

Referring to a nearly fatal case of hæmorrhage, Bertherand insists, and we think very properly, on the necessity of regulating our ligation

of arteries, not by the jets of blood, but by an exact anatomical acquaintance with the principal vessels of the region.

Tetanus appears not to have been a very frequent complication in the English army, but when occurring, was, as usual, almost universally fatal. After Solferino, on the contrary, there were thirty cases, all of which terminated fatally. M. Bertherand attributes their occurrence in great measure to the chilly, damp air of the churches, in which many of the wounded were temporarily laid, it having manifested itself almost exclusively among those who were thus disposed of. One case he mentions as having been cured by the exhibition of the curare, in the hands of M. Vella, at Turin. The wound having been laid open, the curare was applied to its surface in solution, as well as introduced into the system by the endermic method, always with the result of quieting the paroxysms and giving the patient the control of his muscles. The case was a violent one, and when this treatment was commenced, threatened asphyxia.

Our readers will remember the announcement, during the Italian Campaign, of the discovery of a disinfecting powder by some surgeons of Paris, which, placed upon gangrenous or ill-conditioned wounds, was to restore the surfaces almost invariably, and as if by magic, to a healthy condition. M. Bertherand gives a very careful analysis of the results obtained by its use, and is disposed to attribute but little efficacy to it. It is known as the mixture of MM. Corne and Demeaux, and consists of certain proportions of plaster of Paris and coal-tar. He has seen it act as an unyielding barrier to the escape of pus, and thus cause the most excruciating pain. He considers that, far from destroying the *sui generis* odor of gangrene at its source, it simply introduces an obturator between the generating surface and the nose of the observer, and that it has no capacity whatever for the absorption of pus. In many instances it appeared to him to act rather as an irritant. The beneficial results which apparently followed its employment at Milan he refers to the superior hygienic conditions in which those were placed who were undergoing the experiments and the care with which they were watched.

In the English camp, fuming nitric acid as an escharotic, freely applied to the healthy as well as the diseased surface, was relied upon in the external treatment of these cases of hospital gangrene, which, however, were not numerous, and tonics, especially iron, were liberally administered with the best results.

In regard to mortification from exposure to cold, Macleod says: "Complete non-interference during every stage of treatment, the re-

moval of parts only when quite disjointed, proved the best line of procedure."

The trephine was used twenty-eight times in the British service in the Crimea, and of these cases twenty-four ended fatally. Bertherand, on the other hand, mentions four cases as occurring under his immediate notice, three of which proved successful.

On the question of the indications for its use, the English surgeon says, (p. 170:) "Simple contusion, without fracture or depression, caused the old surgeons to 'set on the large crown' of a trephine, in order to prevent further danger. Fractures, although not accompanied by depression or any other untoward symptom, called for the trephine in the practice of the Pott school; while many even now would operate to cure the local pain which so often remains persistent at the place of injury. Other surgeons, again, discarding and condemning all this, say we should trephine only when there is depression; but the amount of depression which demands it, each interprets according to his own fancy. None knows so well as the army surgeon how very considerable a depression may exist, especially at some parts of the head, without any injury to the brain; nor how innumerable are the cases in which great depression has been present, without causing harm at any subsequent period of the patient's life."

And in speaking of the subsequent care of wounds of the head, he continues, (p. 188:) "Hardly less important than the immediate treatment of gunshot wounds of the head, is their after-management. No class of cases requires more lengthened and careful supervision. Relapses may occur long after the patient is apparently beyond danger; and from the most insignificant causes—of which, perhaps, irregularities in food, the use of alcoholic stimuli, and retained evacuations occupy the foreground—a chronic inflammatory condition of the membranes is apt to become established, which is no less difficult to manage than dangerous in its ultimate results. Very many cases are on record in which men with balls imbedded in the brain have apparently recovered completely, but have suddenly fallen down dead when they had got drunk or excited."

Passing over the chapters on wounds of the face, chest, and abdomen, which present nothing particularly new beyond the recital of a number of very interesting cases, we come to the important questions of compound and comminuted fractures and amputations.

The relative advantages of primary and secondary amputations, the most important question in the whole domain of military surgery, is

quite fully discussed by both authors, and their results do not differ. The one says, (p. 319:)

"To military surgeons the question of primary or secondary amputation is a settled one. The experience of every war has more and more confirmed the advantages of early operation, and that in the Crimea has not disturbed the rule; in fact, later observation would lead us to go further, and in place of merely advocating interference within twenty-four hours, the prevailing idea at present would be better expressed by saying that every hour 'the humane operation' is delayed diminishes the chances of a favorable issue."

And the other gives the following figures prepared by M. Sonrier, who justly observes that they speak more loudly than any arguments. "The ten operations performed *immediately* at Solferino were followed by nine cures.

"Arranging the operations in periods of fifteen days, we have the following results:

Operations.	*Successful.*	*Unsuccessful.*
From June 24th to July 1st, (4 grave).....	12	5
" July 1st " 15th, (11 id.).....	14	16
" " 15th " 31st, (7 id.).....	2	12
" Aug. 1st to Aug. 20th, (2 id.).....	3	2
	31	35"

Attempts to preserve the limbs in cases of compound fractures, especially of the thigh, were made in both armies, and with like discouraging results. Macleod says, (p. 249:)

"It can hardly be doubted that the great striving after conservatism, which influenced all the surgeons of our army, was one main cause of that mortality which attended these injuries. We were not prepared to believe how hopeless they were, till the unwelcome truth was forced upon us by an ever-recurring experience. We were disposed to judge of compound fractures by gunshot as we would of accidents, similar at least in name, seen in civil life. Full of the promise of the schools, we would not admit that any injury, apparently so slight, could withstand the assiduities of a wise conservatism. In trying, however, to save limbs, we lost many lives, thus fulfilling the prophecy of one of the greatest surgeons. Cases of promising appearance were reserved for the trial—the very cases, in fact, which would have made the best recoveries if operated upon early, and the inevitable amputation was delayed till the patient's constitution had become so depressed as to be beyond reaction." While Bertherand, who early in his campaign looked forward with much and apparently well-founded hope to the establishment of the possibility of the treat-

ment of these fractures, and the procurement of solid union, concludes his discussion of the subject as follows: "The surgeon too often hesitates, disarmed in the presence of considerations of the personal position, the age, the shattered hopes of his patient, and sees a man die with four limbs who might have lived with three." "Who can say that the successes obtained, numerically so insignificant as compared with the grand total of fractures of the thigh by gunshot, have not been bought at the price of the most painful sacrifices?"

In summing up, as well as he was able at that early date to do so, the results of the surgery of the war, Dr. B. says: "In the absence of accurate and full figures as to general results, I give a few incomplete statements, which, however, will serve to indicate the general situation, and to corroborate the presumption of satisfactory averages. One of these refers to the most unsparing of all amputations, those of the thigh. On the 9th of August last, M. Gherini and his colleagues could count seven successful cases out of ten operated on at San-Filippo." This is certainly an unprecedented success. The table given by Macleod of the average mortality in a number of modern wars never makes it less than 51 per cent.; and the general average is about 70. That of the Crimea was about 64 per cent. Dr. B. continues: "After Solferino, more than 17,000 French, 14,000 Italians, and about 1,500 Austrians (say 33,000 wounded and sick) entered the hospitals of Brescia; fourteen consecutive amputations were performed. From the 6th of June until the present date, (Aug. 17th,) a period which comprises the battles of Magenta, Solferino, and Melegnano, Milan received in round numbers 21,000 French, 6,000 Italians, 7,000 Austrians; total 34,000, wounded or sick. Of these 29,000 have left cured, or been transferred as convalescent, while 4,000 are still under treatment. The mortality has not risen above 1,400 individuals, say a proportion of less than four to the hundred." The final results of the mortality of the wounded of the English army in the Crimea give an average of about seventeen to the hundred, and the mortality among the sick was scarcely less. The hygienic conditions of the two armies, however, and the nature of their respective duties, together especially with the brevity of the Italian campaign, make anything like a comparison of results altogether unfair and deceptive.

While both these works well repay the medical reader for their perusal, we have read them with peculiar satisfaction, from the fact that they have shown us in very many points that what we have regarded as causes of opprobrium both to the combatant, the medical

and the purveying departments of our armies, have existed in an equal or greater degree in the attempts of the two greatest military powers of Europe to place large armies in the field within the past ten years. Let us thank God that, dark as the picture of the condition of our hastily gathered levies may have been in the earlier part of the campaign, it was brightness, cheer, and comfort as compared with that drawn by Macleod and every other observer of the *avoidable* miseries of the brave soldiers of her Gracious Majesty the Queen, in Bulgaria and before Sebastopol. If the assistance of 280 Italian physicians was found essential to the care of the French wounded, in addition to their own medical staff; and if, as M. Bertherand tells us, that number could not have been obtained from the French institutions, is it strange that, after our battles, there has been some lack of medical attendance to complain of? If, even with all the immense military stores of France, which have been accumulating ever since Napoleon took the reins of government, the Zouaves were still obliged to bivouac without blankets, and were attacked with intermittents in consequence, is it remarkable that, in our utterly unprepared condition, we were unable properly to clothe all of our patriot soldiers?

And lastly, if trained French troops, whose valor is undoubted, full of the spirit of a glorious victory, could be thrown into so complete a panic by the "*hallucinations of hired wagoners*," that, as Bertherand informs us, it was communicated even to the wounded in the hospital of San-Luiggi, at Castiglione, who, tearing the splints and bandages from their shattered limbs, dragged themselves to the doors of the wards, seeking to fly, without knowing whither or how, can we wonder that a similar cause produced a similar result among a portion of our raw recruits, worn out by hunger and an exhausting march? Macleod's work is reprinted from the English edition, in Lippincott's usual neat and attractive style, and deserves, from its appearance as well as its value, a generous reception from the medical public. Bertherand's is still untranslated, but we trust that it will not be long before some enterprising publisher gives it to American readers.

Clinical Lectures on the Diseases of Women and Children. By GUNNING S. BEDFORD, A.M., M.D., Professor of Obstetrics, the Diseases of Women and Children, and Clinical Obstetrics in the University of New York; Author of the "Principles and Practice of Obstetrics." ("Medicus curat morbos, natura sanat."—*Hippocrates.*") Seventh Edition, carefully revised. New York: William Wood, 389 Broadway. 1862. 8vo, pp. 653.

We wrote a notice of "Bedford's Women and Children," it seems to us, but a little while ago. On that occasion we referred to the fifth issue, and now, we have already, the seventh presented to us. There were at that time 604 pages of progeny, while now, we have 653. They have been scattered in French and German dresses, as well as in their native garb, over all the civilized portions of the world, and we have rarely seen more numerous or more favorable notices of any book in the journals of the various countries, than of the unpretending and colloquial yet strictly clinical and practical volume now once more announced. We think we can take for granted, that our readers are aware both of its existence and its character, and abstain from presenting a detailed review, which would but necessitate the repetition of laudatory encomiums it has elicited everywhere. Those who have not yet had access to the work can do no better than get the "seventh revised," and ascertain for themselves the precise amount of benefit that will accrue to their women-and-children patients from the treatment it inculcates.

The light leather binding of the copy before us, we do not regard as being as elegant or nearly so desirable for use as that of the author's "Obstetrics," issued recently by the same publishing house.

EDITORIAL AND MISCELLANEOUS.

— THE ANNUAL MEETING OF THE STATE MEDICAL SOCIETY, held on the 4th, 5th, and 6th days of February, was the fifty-fifth session of this important body. It was not inferior to former sessions, in numbers or in interest. The introductory address of Dr. E. H. PARKER, the President, commencing with a feeling tribute to the memory of his predecessor, Dr. David J. Jones, was devoted to the new importance which Military Surgery has acquired in consequence of the events of the past year, the duties of Military Surgeons, and of medical bodies in their relations to Military Surgeons. The following quotation ex-

presses so well what has always been our opinion with regard to the relative value of hygiene and medication, and operative surgery, that we are induced to give it literally:

"But it is to be borne in mind that the medical officer of the army, so far as he acts as a surgeon proper, is almost a specialist, while a large share of his duties are purely medical. No regiment is constantly going into action, and the shafts of disease are far more fatal to soldiers than the bullets of the enemy. As a defence against the latter, the engineer is required to throw up his earth-works; and it is equally the duty of the medical officer to see to it that the men under his charge are as far as possible protected from the former. Prophylaxis, whether it be by using quinine to prevent malarial disease, or by compelling attention to the sinks and other sources of effluvia to avoid camp dysentery; or by seeing to it that cleanliness of the person is enforced as an especial defence against the invasion of typhoid diseases—or by a careful supervision of the means and modes of cooking—prophylaxis, I say, is a far more important study than that of the latest way of doing an amputation. The character and mode of the operation required from a gunshot wound is usually settled by the ball that inflicts it, and that with a profound disregard of the theories and dogmas of the schools, whether they be English or French, German or Russian, compelling one to take his flap, and to separate the bones when he can, not when he would."

With reference to the matter of the responsibility of military surgeons for the wounded taken prisoners by the enemy, he makes these timely remarks:

"The duty a military surgeon owes to the wounded when a battle is lost, is a topic of interest. I am aware that much may be said concerning the claims that the remainder of his regiment may have upon him, to justify him in leaving them to the care of the victors. But it is more in accordance with the spirit of our profession, which is never deficient in bravery or self-devotion to the good of others, that if the wounded are in any numbers the Surgeon should remain with them. The Surgeons of the victors usually have as much as they can do among their own troops, and if any are neglected it naturally is the prisoners. With the necessary confinement, trifling neglects become serious, and the result of an operation may be entirely different when advised and performed by a known and tried friend, or an avowed enemy.

"The very touch of a friendly hand is to a sick prisoner often more than medicine. To all of these, it seems to me, the soldier has a

claim, and if he knows he may expect such devotion from his Surgeon, he will fight with less hesitation. These principles hold, of course, only in large engagements, when there are many wounded on both sides.

"At the battle known as that of Bull Run, large numbers of our wounded were collected in a church, and a number of Surgeons of our army were present with them. There was ample time for all to have returned with their forces. A few so improved their time, but the majority remained, and for months suffered all the dangers as well as inconveniences of prison life. True as the latter were to all the teachings of our profession, when to be true was not a slight thing, it seems to me proper that this Society, representing as it does the profession of our State, should mark this conduct with its approbation. I would urge upon you some such expression of their opinion, as may make those gentlemen, whether from our own or other States, feel that their heroism was noticed and applauded by their professional brethren."

The following were the Papers read before the Society:

"On Reflex Paraplegia as a Sequel of Diphtheria." By Dr. Bissell, of Utica.

"On Conservative Surgery." By Dr. S. D. Willard, of Albany; with a List of the Surgeons and Assistant Surgeons of the Volunteer Army of New York.

"On the Medical Provision of Railroads as a Humanitarian Measure, as well as a Source of Economy to Companies." By Dr. Edmund Arnold, of Yonkers.

"On Dislocation into the Ischiatic Notch, with Autopsy." By Dr. Hutchinson, of Kings County.

"Synopsis of a Case of Peritonitis in a Child." By Dr. Downs, of New York.

"On the Medico-Legal Points in a Case of Suspected Murder." By Dr. John Swinburne, of Albany.

"Description of a New Instrument for the Treatment of Stricture of the Urethra." By Dr. J. M. Minor, of Kings County.

"On a New Instrument for removing Foreign Bodies from the Trachea and Œsophagus." By Dr. Burge, of Kings County.

"On Proper Points for Amputation." By Dr. Bly, of Rochester.

The following "Pathological Specimens" were presented:

Dr. J. C. Finnell, President of the New York Pathological Society, presented—

"A Case of Anchylosis of the Ankle-Joint, following fracture, with interstitial absorption of the bones of the Tarsus."

"A Compound Fracture of the Skull, with Impaction of a fragment of the brick, which caused the injury."

The Skeleton of a Monster.

Dr. Porter presented for Dr. Boulware, of Albany, a specimen of Wound of the Trachea, through the Crico-thyroid membrane.

Dr. M. M. Marsh, of Onondaga, presented a specimen of Cirrhosis of the Liver, with duplicate Spleen.

Dr. Quackenbush, of Albany, presented, for Dr. Van Dyck, a Monster in which there was extrusion of the Thoracic and Abdominal Viscera.

Reports were offered upon the following subjects:

"Report of a Special Committee on the United States Drug Law." Read for Dr. F. H. Hamilton by Dr. Squibb, of Brooklyn.

Report of Dr. E. R. Squibb, as representative of the Society in the Committee of Revision and Publication of the United States Pharmacopœia.

The only important Resolutions adopted were those of Dr. Mason, of Kings Co., in support of the Metropolitan Health Bill, as follows:

Whereas, On the principle of self-preservation being the first law of nature, it is the paramount duty of the State to promote by all possible means the preservation of the health and lives of the people, and their protection against the causes of disease which continually surround them, especially in connection with the conditions of civilization; and whereas, in the opinion of this Society, the health laws of this State have not kept pace with the rapid modern progress of sanitary science, and Government fails to enforce many well-known means by which disease and death may be averted, and longevity and population increased: Therefore,

Resolved, That the bill now before the Legislature, known as the Metropolitan Health Bill, meets with the cordial approval of the State Medical Society, as a measure which, though partial in its application to one section of the State, is a step in the right direction, and should be enacted into a law without delay.

Resolved, That the foregoing preamble and resolut on be authenticated by the officers of this Society, and transmitted to the two Houses of Legislature.

Of Dr. Brinsmade, of Troy:

Resolved, That a Committee of five be appointed to draft a Sanitary Code for the State of New York, and submit the same to this Society for its consideration, at its next annual meeting.

Of Dr. Van Hœvenburgh, of Ulster:

Resolved, That a Committee of five be appointed by the Chair to see Dr. Freer, Chairman of the Senate Committee on Medical Societies, as also the Medical Committee of the House, and inquire into the provisions of the bill incorporating the State Homœopathic Medical Society, and report to this Society what action is necessary in the premises.

Of Dr. Shrady, of New York, Chairman of Committee on Medical Provision for Railroads:

Whereas, This Society has heard that a measure is about being introduced into the Senate, of which an essential feature is thorough medical provision for railroads; and whereas, we believe that much loss of life and limb results from want of such provision: Therefore,

Resolved, That we hail with satisfaction the introduction of any plans calculated to secure so desirable an end.

Resolved, That a copy of the foregoing be forwarded to Senator Smith, of Kings County, the gentleman who had given notice to the Senate of the introduction of such a measure.

And of Dr. Coates:

Whereas, It becomes us, as dependent upon the All-wise Being for guidance in all our transactions: Threfore,

Resolved, That hereafter the proceedings of our annual meeting be inaugurated with prayer, and that the Secretary be requested to invite the attendance of some clergyman to act as chaplain.

The following named gentlemen were elected as officers for the ensuing year: *President*, Thomas Hun, of Albany; *Vice-President*, D. P. Bissell, of Utica; *Secretary*, S. D. Willard, of Albany; *Treasurer*, J. V. P. Quackenbush, of Albany; *Committee on Publications*, Thomas Hun, S. D. Willard, and Howard Townsend; for *Censors*, *Southern District*, W. Govan, Joel Foster, and E. Harris; *Eastern District*, B. P. Staats, J. W. Blatchford, and P. McNaughton; *Middle District*, J. S. Sprague, C. B. Coventry, and A. P. Doolittle; *Western District*, Alex. Thompson, H. W. Dean, and E. Hall.

The Annual Address was delivered by the President in the Assembly Chamber, on Wednesday evening. The subject was the "Dignity of the Medical Profession."

We cannot but regard it as a matter of regret that the committees appointed to consider the recommendations of the Academy of Medicine, and of the Oneida County Society, on the subject of the introduction of homœopathy into the national army, decided adversely to any action upon the subject. We think that no pains should be spared to show the Government that that profession which has so lavishly furnished its members on its first demand, is jealous of its honor, and that the elevation of quackery by legislative action to a level with its own science, and the introduction of ignorant pretenders or hare-brained enthusiasts into the service as the equals of its own members, will be resented and resisted by it to the last. It will not do to trust too much to the magnanimity or the good sense of our law-givers, unaided by professional advice and the weight of enlightened public opinion.

A Philadelphia contemporary justly styles the State Society of New York the most important medical association in the country. Its immediate connection with the Legislature of the State, the influence which it thus acquires in all legislation on sanitary matters, the weight given to its transactions by their publication as Government documents, and the extensive circulation thus assured them, all combine to give it

a standing and character which even the National Association does not possess. But the profession in New York City, at least that portion of it which is represented by the Academy of Medicine, "does not see it." So it waits until a few days before the meeting, and then elects its delegates without the slightest regard to the fact of their want of preparation, and of course leaving them no time to prepare. And hence it results, that while most interesting and instructive papers and specimens are presented by members representing the towns which we delight to call provincial, and even the country districts, the principal society of this great City of New York, with its thousands of physicians, makes not a single contribution to the cause of science, and its delegates are remarkable only for the looseness and incongruity of their ideas. There was a delicious little touch of irony which we fear was not appreciated by our New York *savants*, in Dr. Quackenbush's motion, "That Dr. Garrish, of New York, be requested to prepare a history of diphtheria, and present it at the next annual meeting of the Society." We regret that it was laid on the table. It might have evoked something worthy of the body so worthily represented by that gentleman. He would have had the geographical and chronological history of the disease ready made to his hand in the present number of the MONTHLY, and with a little imagination the rest might easily have been filled in. Dr. Swinburne's paper was certainly in every way far inferior to the lucid exposition of the same subject by Dr. Clarke, before the Academy of Medicine, which it undertook to controvert; but it will be spread far and wide, as the latter never can be, and will leave the impression on the minds of those who read it, without an opportunity to see the latter, that Prof. C. is an unscrupulous partisan rather than a calm investigator of scientific truths.

— OBITUARY—*Medical Cadet Delafield.*—We copy the following resolutions relative to the death of this talented and devoted young aspirant to medical honors in the service of his country, from the *American Medical Times:*

At a meeting of Medical Cadets, U. S. Army, held in Washington, D. C., Jan. 20th, W. D. Day, of the General Hospital, Alexandria, was elected Chairman, and H. A. Robbins, of the Circle Hospital, Washington, Secretary. Messrs. Paine, Davis, and Bodman, were appointed a committee to draft resolutions on the death of Medical Cadet DELAFIELD, and presented the following, which were unanimously adopted:

Whereas, It has pleased the Supreme Ruler of events to remove from our midst, by death, Medical Cadet RUFUS DELAFIELD, of New York City: therefore,

Resolved, That we bow in humble submission to this decree of an all-wise Providence, recognizing in the event the hand of "Him who doeth all things well."

Resolved, That in the death of Cadet DELAFIELD, the corps has lost an efficient and faithful member, the science of medicine an earnest and enthusiastic student, and the profession one of its most promising aspirants.

Resolved, That we will ever cherish the memory of the many virtues of the deceased, and imitate his patriotic devotion, his scientific zeal, and his uniformly kind and Christian deportment.

Resolved, That we extend to the bereaved relatives and friends of the deceased our sympathy and condolence in this dark hour of their trial, and commend to them the consolation that comes from a higher than human source.

Resolved, That we wear the usual badge of mourning for thirty days, and that a copy of these resolutions, signed by the Chairman and Secretary, be sent to the family of the deceased, and to the medical and other journals for publication.

— *Brigade Surgeon Luther V. Bell.*—At the same time with the early departure of this young man from the chosen scene of his labors, we are called upon to notice the decease of one ripe in years and experience, who hastened at his country's call to place all the treasures of his well-stored mind at her command, and, as it proved, to sacrifice them on her altar. The following resolutions were offered by Dr. Bowditch, at a special meeting of the Suffolk District Medical Society, on Friday, February 11th:

Resolved, That the Suffolk District Medical Society has learned with mingled emotions of the death of Dr. Luther V. Bell, recently President of the Massachusetts Medical Society.

Resolved, That while we feel sorrow at the great loss which the community and the profession have sustained in the death of so good and so wise a man, we experience a just pride in the fact that as one of our profession, having enlisted at the earliest moment of this sacred war, he died at his post of honor, thus crowning a life of almost unexampled professional success and reputation with the sweet fame that always clusters around the memory of the dying patriot.

Resolved, That we tender our most cordial sympathy to his now orphaned children; and in token thereof, it be voted that these resolutions, signed by the President and Secretary, be forwarded to them.

The following from Dr. Jackson's remarks on seconding the resolutions will give some idea of the varied attainments of this well known physician:

Dr. Bell was an eminent man, not only as a physician, but also as a man of science. He was not only a good anatomist and a skillful surgeon, but was also a man of great inventive genius, especially in the mechanical arts. To him we owe the original invention of the atmospheric dispatch-bearer, or telegraph, an instrument patented by others, years after Dr. Bell had given it to the public, and which is now in extensive use in England, and especially in the city of London. He was the first who pointed out the method, since adopted, for spinning flax, an invention of great value, and now in extensive use throughout the world. He made many improvements in architecture, and in ventilation and warming of hospitals and public buildings, and not a few destined for surgical purposes.

He was a man of commanding genius, possessing a vast amount of knowledge of various arts, and yet, withal, so modest, as to throw forth his matured ideas as if they were mere suggestions for others to consider.

Dr. Bell's character, as a good and kind-hearted man, is too well known to the medical profession and the public in this vicinity to re-

quire any mention from me. His eminence as a physician for the insane need not be urged, for all here know it full well.

The Honorable Dr. Hitchcock, in the Executive Council, alluded with so much feeling and eloquence to his patriotic devotion and zeal, that we cannot forbear transcribing a portion of his tribute:

"In the departments of Hygiene and Sanitary science, his wisdom was acknowledged and his authority unquestioned. In the literature and jurisprudence of insanity he was without a rival; and his opinions on questions of lunacy were usually accepted as final by populace, juries, and judges. With the modesty and dignity characteristic of true greatness, he received the highest honors in the gift of his professional brethren. In the literary or social circle he was affluent, instructive, and charming; and yet he never failed to command respect and win affection. As a politician he was well versed in constitutional law; and as a partisan his candor and magnanimity were proverbial, and were usually confessed by his opponents. His reverence for law and love of country were radical and abiding principles in his nature. When the red hand of treason was raised against the Government, he forgot his long-continued physical infirmity, and girded on his armor and gave himself for its defence. In charge of the health of the 11th Regiment, Massachusetts Volunteers, he went forth from the State and enrolled himself for the war in the loyal army of the Republic. His ability and fidelity soon led to his promotion as Brigade Surgeon to General Hooker's division on the Lower Potomac.

"He fell honorably in the service of his country—not amid the shock of battle—but, as the Christian hero would wish to die, resting on his armor peacefully in his tent. The profession to which he belonged, the Commonwealth he represented, the national army he served, will deeply feel his loss. His name and character will be held in sweet and sacred remembrance. Though dead, his example and fidelity to duty, and loyalty to country, will long live as an incentive to survivors to higher and nobler purposes of life."

Thus, side by side do the ornaments of our noble profession, the gray-haired veteran and the fervid youth, with one common impulse throw themselves into the gap of their country's need, and thus side by side do they go down to the chambers of death, martyrs in a holy cause. Who shall say that their memories shall not be as green and their names as cherished as those of the patriots whose breath goes out amid the clash of arms with the red sword clasped in their clenched hands?

— Extremes meet in death as in life. Last month we noticed the decease of the inventor of the Stomach-Pump, and now, strangely enough, we have to record that of the inventor of the Rectal Tube. Dr. O'Beirne, so well known for his somewhat peculiar views on the

subject of defecation, died, as we learn from the *Dublin Medical Press*, on the 16th of January. At the time of his death he was much interested in getting out a work on tetanus, which was to be published by subscription. It is probably somewhat doubtful now whether it ever makes its appearance. The doctor was a graduate of Edinburgh, and bore the dignities of Surgeon Extraordinary to the Queen in Ireland, and the ex-Presidency of the Royal College of Surgeons of Ireland, besides being consulting physician to many hospitals. He was at the battle of Waterloo, and held a war medal with eight clasps.

— HONOR TO WHOM HONOR.—We very cheerfully give insertion to the following correction of an absurd and unpardonable blunder:

"In the last English edition of Samuel Cooper's *Surgical Dictionary*, a singular error has been committed by Mr. Erichsen, the author of the article upon Ligature of the Internal Iliac Artery. It is stated that this artery was first tied, and that successfully, in 1828, in the United States, by "Mr. Hudson, of New York." To be correct it should have read, by Dr. S. Pomroy White, M.D., of New York, formerly of Hudson, in the State of New York. "As Dr. White performed this operation at a distance from his residence, and attended the patient without receiving any pecuniary compensation, we think the credit of the operation should not be accorded to Mr. Hudson." —(*Am. Med. Times.*)

This is, however, about as near the truth as our English relatives ever come in their statements of American affairs.

— THE SANITARY COMMISSION ON HAND.—We clip the following from the correspondence of a daily paper:

The Sanitary Commission of Washington, with their usual promptness, have sent forward a good supply of the most needful articles for the comfort and relief of the wounded at Roanoke Island. Dr. J. W. Page, Sanitary Inspector, is here, with some sixty odd cases of hospital stores, the contributions of the ladies of the country for these humane purposes. The list of these articles will be interesting. There are 600 shirts, 300 pairs linen drawers, 200 cotton flannel drawers, 1,000 sheets, 1,000 blankets, 370 pillows, 200 cushions, 1,300 pairs socks, 500 towels, 300 pillow-cases, 300 slippers, 108 packages farina, 2 barrels of roller bandages, 30 pounds of lint, 500 bed sacks, 8 kegs of sherry wine and liquors, and a case of drugs.

— The valuable Report on Pneumonia, a portion of which we reprint this month, is from the pen of Prof. Austin Flint, M.D., whose labors in the field of thoracic disease are so well known to all our readers.